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A MANUAL

OF THE

DOMESTIC PRACTICE OF MEDICINE

BY

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PREFACE.

It is not the intention of this Manual to supersede the office of the professional attendant; the pretence could only be a self-evident and useless imposition. Common sense and the instinct of self-preservation will urge the sufferer to seek for aid where skill and science inspire confidence, and afford the only rational ground of hope for a speedy or permanent restoration to health. Skill and science, however, are not at the command of all with whom the *practice* of medicine may become an unavoidable and urgent obligation. Based as it must be upon the science of medicine, medical or surgical practice must nevertheless, under some circumstances, be entrusted to unscientific hands; and this, with judicious practical guidance, can commonly be done with safety.

The scope and intentions of this work obviously preclude any claim to originality farther than that of the careful comparison of the Author's experience with the recorded observations and opinions of the best medical writers. No higher character is assumed, with regard to the present work, than that of judicious compilation, or selection of materials from the rich stores of medical science and literature. The Author has not failed to avail himself of every source of information within his reach. He has not, how-

ever, felt called upon to make exact quotations, lest, whilst addressing himself to non-professional readers, he should, by an array of foot-notes and references, have incurred the charge of a parade of erudition. It may suffice that he here makes known his obligations to the works of Copland, Latham, Abercrombie, Pereira, Taylor, Rees, Thomson, West, Druitt, South, Wilson, Fuller, and others.

The Author has reason to know that the preceding editions of this Manual have been found useful, both at home and in the colonies; he hopes that this sixth issue will be found still more so, as he has spared no pains to make it suitable to the purpose for which it is intended.

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CONTENTS.

	Page
PREFACE	v
Introductory Chapter.	
Hygiene	1
Sleep	1
Cleanliness	3
Bathing and Baths	3
Diet in Health and Disease	7
Alcoholic Stimulants	14
Climate	19
Disinfection	20
Ventilation, etc.	21
Nursing, etc.	24
Qualifications of a Nurse	24
Leeching	25
Blistering	26
Fomentations, &c.	27
Convalescence	29
Prevention of Spread of Infectious Diseases	29

SECTION I.

ALPHABETICAL ARRANGEMENT OF DISEASES AND EMERGENCIES, THEIR SYMPTOMS, CAUSES, AND TREATMENT.

Introductory Observations.	
Symptoms	33
Diagnosis	34
Table of Symptoms	37
Diseases, in their alphabetical order	44
Lying-in Room, and Management of Newly-born Infants	150

SECTION II.

Page
ACCIDENTS, and their Treatment 224

SECTION III.

POISONING.

General Observations on Action of Poisons 257
Table of Poisons, their Symptoms and Treatment 258

SECTION IV.

MEDICINES.

Preliminary Observations upon circumstances which Modify the Action of Medicines 263
Classification of Medicines according to their Modes of Action . 266
Medical Weights and Measures 269
Alphabetical List of Medicines 271
Table of Prescriptions 309
List of Articles suitable for a Medicine Chest 331
Index 333

A MANUAL

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INTRODUCTORY CHAPTER.

HYGIENE.

This term is generally applied to the consideration or investigation of all means of preserving health or warding off disease. The objects of hygiene therefore constitute a wide field, sufficient to furnish the material for separate treatises, embracing topics and involving proceedings that occupy the attention of the head of a department of public service with a large subordinate staff of agents. In this place we purpose to treat very briefly of those hygienic measures which are more immediately within the reach of and more directly concern those to whom the present work is addressed. These subjects are sleep, cleanliness, bathing, diet, change of climate, disinfection, ventilation, and vaccination.

SLEEP.

The first few weeks of life are well spent in sleeping and feeding. After five or six months it is desirable not to allow beyond a couple of hours for sleep in the middle of the day, because if the infant sleep the greater part of the day, it will not enjoy sound repose at night,—in which case not only the infant, but also its parents suffer the penalty.

A feeble child will require rather more sleep than a strong child. In any case, it is a point of importance that the child should be kept moderately warm while sleeping,—in the earliest days of life, by the warmth of the mother's body.

When, at the age of two or three weeks, it shall have acquired the power of maintaining its own warmth, the child may be placed in a cot or bassinette. The access of air should be freely allowed to the face and mouth of the infant, instead of smothering it over with curtains and coverings of various kinds.

Children require more sleep than adults; it is therefore very desirable to keep up the practice of their midday sleep until between two and three years of age.

The number of hours that must be given to sleep will vary greatly, even with children of the same age. Up to ten years of age, fourteen hours out of the twenty-four will not be too much. This may be gradually shortened to eight hours at the period of puberty.

Many grown-up persons require eight hours' sleep; others are sufficiently refreshed by five or six. As a rule, we may say that seven hours should be given to sleep. Much, however, will depend upon the regularity with which rest can be taken, and its not being disturbed. Habitually prolonged sleeping tends to a lethargic condition and to disorders of the brain. Habitually insufficient sleep leaves the constitution the more exposed to the wear and tear of every day's toils and anxieties. Many great personages are quoted as having used themselves to take only four or five hours' sleep; but these great people were in all other respects above the common standard of man, and are not to be copied at one point only; that very point, moreover, being probably one to which those individuals could have traced much moral and physical suffering, and the shortening of their period of usefulness. Very few instances of longevity will be found among those who have defrauded themselves of their hours of rest. Not only have they missed the restoration and renovation of their exhausted frames, but too often they have been compelled to substitute stimulation for natural refreshment. To the truth of these remarks many literary men and students can bear testimony, in the penalty of the premature old age which

they have incurred by infringement of the inviolable laws of nature.

CLEANLINESS.

Where much dirt is, disease is not far off. If the skin, for instance, be not kept clean, its pores become obstructed, the ordinary amount of insensible perspiration cannot take place, and the consequence must be derangements of the general health, or diseases of the skin in particular. Mr. Erasmus Wilson has calculated that there are twenty-eight miles of surface of pores of the skin on a healthy adult man. If the operations of half of these organs be suspended, the result must of necessity be prejudicial to the health.

If we find a cottage or house always dirty and untidy, it may be feared that the inmates will incur the natural penalty thereof, and so, by experience, it is found to be, since much of the disease that prevails among the lower classes in towns or crowded villages is traceable to neglect of cleanliness.

In infant life, cleanliness is a point of vital importance. The effects of neglect of this point are followed by skin diseases, excoriations, and much suffering,—most of which might be avoided by the simple performance of daily washing in a bath of warm or tepid water, according to the season of the year. Cold water should not be used to young children or infants. Only the most robust children can stand hardening; the delicate die off under the experiment, and the hardy then remain the (signal) triumphs of a system.

After infancy, and after childhood also, the practice of daily entire ablution should be continued where practicable. The temperature of the water may, of course, be lowered with the age, until in youth cold water is preferable to warm, provided it has not a depressing action upon the skin. To be healthful, the process should be followed by a glow upon the surface.

BATHING.

As a means of preserving health as well as of treating

disease, bathing is a subject of great importance. Baths may be classified as follows :—

	WATER.	VAPOUR.	
		Not Breathed.	Breathed.
Cold Bath ...	60°		
Tepid Bath ...	75° to 92°	96° to 106°	90° to 100°
Warm Bath...	92° to 98°	106° to 120°	100° to 110°
Hot Bath	98° to 106°	120° to 160°	110° to 130°

Cold Baths.—The first effect of a cold bath is a certain degree of shock ; this is followed by a reaction, producing a pleasant glow and sensation of warmth. This will follow sooner with swimmers than with those who remain still in the cold bath. If, however, the bath be prolonged too much, depression follows, against which a natural reaction does not take place as before. When used for medical purposes it is therefore of the highest importance not to prolong the bath beyond the occurrence of the primary reaction which takes the place of the first shock. The degree of reaction, and the benefit to be derived from it, will depend upon the temperature of the water, the duration of the bath, the suddenness of the immersion, and the vigour of the bather's constitution.

Cold bathing is employed medically as a tonic. This effect is produced by the stimulus given to the circulation in the stage of reaction, which determines the blood from congested organs, or causes its more vigorous and energetic circulation in enfeebled parts. If the reaction do not follow, it should be excited by friction of the surface, or by exercise, or by warm drinks.

All the advantages of the cold bath are more surely obtained by sea-water than by simple water. This may be owing to a stimulating influence of the saline matters upon the skin, but mainly to change of scene and other attendant circumstances.

The time of the year at which sea-bathing may be adopted will be regulated by the temperature of the season, and by the degree of power in the constitution of the individual to establish the reaction after the bath. After a very severe winter and cold spring, persons unaccustomed to bathing should not go into the sea until the water has been warmed by several weeks' sun, since otherwise the difference

between the temperature of the atmosphere and the water is very great. After a seashore has been several hours exposed to the rays of the sun during an ebb tide, sufficient heat is absorbed to raise the water on its flow by several degrees higher.

The best time of the day for bathing is about noon or a couple of hours after breakfast. With delicate invalids, however, it may perhaps be advisable to select an earlier hour, in order to avoid the heat of the sun in hot weather. Moderate exercise before bathing promotes the subsequent reaction.

The cold shower-bath is better taken the first thing in the morning,—reaction, as stated by Sir J. Forbes, taking place more speedily while the body retains the warmth of the bed, and before the surface has been chilled by dressing. The daily use of the cold or tepid sponging-bath is of great service to persons in health.

Cold bathing should be very cautiously practised by enfeebled persons. Although a tonic, and therefore indicated by debility, yet it is essential to its safe use that the patient's constitution have sufficient power to ensure the reaction.

The shock of a cold bath should not be encountered by a pregnant woman, unless she shall have been previously accustomed to cold bathing.

What has here been said of open-air cold bathing applies also to the use of small baths in rooms, with this additional observation, that as there is less room for moving about, so reaction is less likely to follow on prolonged use of the bath.

The diseases in which cold bathing should be used may be inferred from all that has been stated. A few additional remarks may, however, assist in the application of the preceding principles.

In infancy and old age the cold bath should seldom be employed. It should be avoided by apoplectic persons, and by the subjects of spitting of blood, unless under medical advice. It should be very cautiously employed where congestion of important internal organs exists, and in all cases of disease of the heart.

Sea air and sea-bathing are of great value to delicate or

strumous children, where no active disease nor any of the above-named objections exist.

In a hygienic point of view or as preventive of disease, sea-bathing is, for all the preceding reasons, a measure to be very cautiously employed, but one which, when used in suitable cases, will greatly protect from all those diseases which arise out of atmospheric and meteorological changes.

Tepid Baths.—Temperate or tepid baths possess many of the advantages and have fewer objections than the cold bath, and may frequently be used with advantage by patients to whom cold bathing is inadmissible.

Warm Baths.—The effect of a warm bath upon the surface of the body is soothing and pleasurable. The effect of a hot bath may be painful. The temperature and the nature of the medium will therefore greatly modify the results obtained. Heated dry air influences the surface less readily than heated moist air, and this again than hot water.

The perspiration is augmented in a hot bath, the action of the heart and frequency of the pulse are increased, and the absolute bulk of the surface of the body is increased.

The warm bath, by promoting the action of the vessels of the surface, soothes and refreshes the whole system: hence it is of service in excessive fatigue, in mental excitement, in inflammatory diseases, in spasmodic diseases, as cholera, etc., in congestion of internal organs, in chronic rheumatic affections, in many chronic diseases.

Hot baths should not be employed in full plethoric habits, in apoplectic subjects, or in cases of structural disease of the heart. In inflammations attended with hot dry skin, the bath should not exceed 90°.

The temperature of a warm bath may be somewhat regulated by the patient's feelings. A thermometer is not always at hand. It is a safe plan of proceeding, more particularly with children, to have a temperature which shall only be agreeably warm to the hand at first, and gradually, by the addition of more hot water from time to time, raise the temperature until the bath feels hot to the hand (see also p. 27).

The period of stay in a warm bath must be regulated by the age and state of the patient, and by the character of the disease. A quarter of an hour is long enough for a

child. Adults may remain as long as an hour, where it is desirable to produce the relaxing effect, as in cases of spasmodic disease, in strangulated rupture, or in retention of urine. Half an hour will generally be sufficient for inflammatory diseases.

It will of course be of the highest importance to protect the surface of the body against a chill on coming out of the bath.

Local warm baths, as the hip-bath, etc., are of service in local congestions, as in retarded or difficult menstruation, etc. The hot foot-bath is useful in determining blood to the extremities.

Vapour Baths have, generally speaking, much the same effect as warm baths, except that they promote perspiration rather more actively. The effects, however, depend considerably upon the manner in which the vapour is applied.

A ready mode of obtaining a vapour bath is at hand everywhere, and should not be passed over, as it may be available where a hot-water bath is not procurable. Let the patient sit on a chair, beneath which is a pail about half-filled with water; cover him or enclose him entirely, from the neck to the ground, with a blanket; then put into the water a red-hot brick. The steam which will be disengaged will form a vapour bath, rough but extempore, and therefore useful to the readers of this book.

A *hot-air bath* is readily made by putting under a chair a basin with water, in which is placed a teacup containing two tablespoonfuls of spirits of wine, (gin or whisky, if the spirits of wine cannot be had,) setting light to the spirit, and then sitting on the chair, enclosed to the neck in a blanket, the legs being protected from the direct heat by a cloth thrown over the front of the chair.

DIET.

Many valuable treatises upon diet have been published, in which are set forth all the chemical and other characters of the various processes to which the food is subjected in the stomach and other organs of digestion. There would be little difficulty in gathering thence a large mass of vastly

interesting physiological details. The objects of the present work do not embrace those topics.

Water, as procured from wells, rivers, etc., is liable to many impurities. Thus the Thames water, which is largely supplied to the southern metropolitan districts, is poisoned by the sewerage of London. The consequence of this was, that last year those districts suffered more severely than others from cholera.

The geological characters of the strata in which well or spring water is found are communicated to that liquid. The large quantity of lime and other earthy salts held in solution by well or spring water not unfrequently renders it unfit for domestic or culinary purposes, and less wholesome as a beverage.

It is an important matter to know how to get rid of these impurities from water; more particularly is it of importance to those who, like settlers in new countries, must have recourse to hitherto untried sources of water supply. The insoluble earthy, animal, and vegetable substances that cause the sediment and impurities of river and lake water, may be separated by filtering. If the water be first boiled, many earthy salts in solution will be precipitated, and all living creatures will be killed, and may then be separated by filtering. There are several modes of filtration. On a large scale it is effected by allowing the water to percolate a bed of gravel and sand. A ready method of filtering small quantities is to take two clean large-sized common red porous flowerpots, one being about two sizes smaller than the other. Stop with a cork or clay the hole in the bottom of each. Place the smaller within the larger, and fill the space that is left between them with small fragments of charcoal. Then place both in a tub of water, so that the water does not flow over their edges. After they have stood for a time varying with the porosity of the pots, the inner pot will be found to be filled, up to the level of the water in the tub, with purified and filtered water. The ordinary filtering jars sold at the shops are, however, by far the most convenient.

Hard water—that is, water containing earthy salts in solution—may be softened by the addition of small quantities of carbonate of soda. Boiling also in some degree

softens hard water, as it drives off carbonic acid gas, which holds the salts of lime in solution, and allows them to be deposited as sediment.

A great boon would be conferred upon mankind by the discovery of some ready method of distilling pure from sea-water. This has not yet been effected so that the water shall be entirely freed from saline matters. Water in this state is unfit for continued use. Human life has, however, on one occasion of a shipwreck, been supported by the performance of a rude distillation. In this manner a surgeon, named Beale, rescued his fellow-sufferers and himself from death by thirst, for many days on a bank, until they received providential aid. Some lead pipe and a kettle having been found, a fire was lighted, and sufficient water was distilled to allay thirst.

Distillation from salt water may be performed by any considerable length of pipe affixed to a kettle in which the salt water is to be boiled. When the water begins to drip, the pipe must be kept cool with cloths dipped in cool water: by this means the steam will be condensed, and the purer water will pass over. If time and opportunity permit, a second distillation will further purify the water.

If water should be at all fetid, it may be sweetened by placing pieces of charcoal in it, and letting them remain there. The fragments of charcoal in the simple filter above mentioned will act as disinfectants, and remove fetid odours. Before using such water, however, it should be boiled.

In acute inflammatory diseases, and fevers of an active character, there is generally no question as to what shall be eaten, as loss of appetite is one of the most prominent and constant attendants of such maladies. In these cases the thirst is often a dominant and very distressing symptom, and one which should be allayed by the free allowance of cold water, toast-water, barley-water, lemonade, and other such simple beverages. A mistake is frequently committed in the refusal of water to children suffering under febrile complaints. As a general rule, they may be indulged with water *ad libitum*. It is, to our apprehension, a great aggravation of mischief, besides a very unnecessary piece of cruelty, to deprive a fever patient of water. In some fevers water must be looked upon as a remedy; it allays

thirst, increases secretion, dilutes the blood, and diminishes the irritating properties of that fluid when conveying the poison of disease throughout the system.

An error not quite so serious, but quite as ill-judged, is to debar children of naturally thirsty habits from free access to the water-jug. Many children suffer greatly from thirst, and the refusal to allay this is unwise. If unrestricted, they will not drink more than nature calls for; if restricted, they may subsequently become regardless of temperance both in the quality and the quantity of what they drink.

With the subsidence of the most severe symptoms of acute diseases thirst decreases, and the appetite gradually returns. It then becomes a matter of some importance so to apportion the diet that neither too little nor too much food shall be taken. In the former case the patient might become debilitated, and sink into a typhoid state; in the other, the digestive organs would be oppressed, and a relapse of disease be probably incurred. Gruel, arrowroot, sago, broths, and beef-tea will tend to allay thirst at the same time that they afford support to the system.

In other inflammatory diseases of a less active character, and during convalescence from those previously mentioned, an augmentation of the solid matters of the diet is required. Bread, rice, eggs, etc., may be added to the lighter articles already enumerated. Some vegetables and ripe pulpy fruits may also be allowed; such as asparagus, kail, cauliflower, cabbages, turnips, strawberries, roasted apples, etc.

Vegetable acids, such as lemon-juice, lime-juice, oranges, and other acidulous pulpy fruits, are beneficial in allaying the thirst of fever. They are also of great service, in a dietetic point of view, in ordinary health, assisting in the process of digestion. To dyspeptics and persons with weak stomachs, vinegar, taken as a condiment, frequently ensures the comfortable digestion of a meal.

Of the great value of vegetable acids in preventing and removing disease, we have ample experience in the use of lime-juice and fresh vegetables on board ship during long voyages. Mr. Tucker, of Berners Street, London, asserted, and adduced evidence in support of his opinion, that vinegar and other vegetable acids, moderately used, act as preventives of cholera.

Milk must be regarded as a liquid food consisting of a solution of the most important alimentary principles, viz. albumen, oil, sugar, water. Its adaptation to the rapid growth of infancy is evidence that it contains the most nutritious substances in the most digestible form.

Considerable difference exists in the nutritive qualities and in the richness of the milk of different animals. Ewes' milk is richest in cream; the next is goats' milk; the next cows'; then human milk; and last, asses' milk. Hence it is that asses' milk will be digested easily by feeble stomachs to which the oily and cheesy or albuminous matters of ordinary milk would be difficult of digestion. A notion exists in the minds of many persons that milk-diet is heavy, or indigestible, or gives rise to biliousness. The fallacy of such a notion is at once apparent from the consideration that it is provided by nature for the delicate digestive organs of infants. Here, however, as in most popular opinions, there is a slight degree of truth as a foundation. Oil, it has been stated, forms one of the elements of milk; oily and fatty matters are not readily digested by feeble or dyspeptic stomachs. So far only is the aforesaid popular notion true. It may, moreover, often be noticed that those persons who fancy milk too heavy for their digestion find no difficulty in disposing of large quantities of meat, cheese, beer, wine, etc. etc.

Sugar, being one of the substances contained in milk, is a natural principle of food. The young of all mammalia must have it supplied to them. It is one of the most digestible alimentary principles, and one which it is absurd to forbid to children. It is well known in the West Indies that during the sugar season the negroes and the lower animals live chiefly upon sugar, and grow fat thereon.

In feeding children we do wisely to follow the indications of nature. In the first five or six months they have not the means of masticating solid matters. Milk is the diet adapted to the condition of their stomachs, and for all the wants of their rapidly growing frames. If from any cause a child cannot be suckled, milk and water, or milk alone, either from the cow, goat, or ass, is the best substitute for the natural food. Sugar of milk is an invaluable addition to the cow's milk that is given to infants. Half a tea-

spoonful should be dissolved in the hot water that is added to each feed. It makes the cow's milk very like human milk, by equalizing the proportions of curd and saline matters.

After six months, the growth of the teeth indicates that the diet may gradually be mixed with more solid materials. Of these the best suited are tapioca, sago, semolina, or arrow-root, boiled in water and mixed with milk.

Beef-tea is a most useful food for the sick. It nourishes and maintains the strength, without exciting the reaction which follows the use of wine or other alcoholic stimulants. It is therefore of service in febrile and inflammatory diseases. Messrs. Brand and Co., of Little Stanhope Street, May Fair, prepare a concentrated beef-tea which is convenient and good. Dr. Christison, of Edinburgh, recommends Messrs. Gillons' meat-juice as the cheapest and best material for the preparation of beef-tea. In this substance, as should be the case with all properly prepared beef-tea or broths, the albuminous or most nutritious element of animal food is separated from the gelatinous matters. It should be understood, that it is not in proportion to the solidity of its jelly that a broth is to be considered nutritious. Jellies, isinglass, gelatin, calves' feet, are useful as light articles of diet for the sick, but they must not be allowed to take the place of strong broth or beef-tea in cases of debility.

Beef-tea, mutton-, veal-, or chicken-broth, should be solutions of the albuminous or most nutritious elements of meats. Much depends upon the mode in which they are prepared, as to their utility to the invalid. Animal broths should not be prepared by boiling. Cold water should be poured upon the finely minced meat in sufficient quantity only to cover it, and the temperature gradually raised, never reaching so high as that of boiling water. The broth thus obtained can be used either diluted or undiluted, according as it is wanted either strong or weak.

Meat is seldom required by children until all the first teeth have appeared. It is not even then advisable that all children should have meat daily. Twice or thrice a week is sufficient for robust healthy children under two years of age. On this point, however, it is safe to be guided by the child's appetite. Many children have an antipathy to meat;

some have a disgust for fat. In these cases their tastes should be followed. If meat or fat be forced upon children under these circumstances, it is more likely to disagree than to be of service. It will therefore be advisable to substitute beef-tea, or other simple broths, for the solid meat. The dislike of fat manifested by many children (as has been pointed out by Dr. King Chambers) is most frequently but the expression of an instinct, which becomes changed with growth. Towards the period of puberty, those who, as children, have not been able to eat fat, often exhibit as strong a liking for it. It is therefore not only useless, but it is unwise, to attempt to thwart this inherent disinclination.

With advance in life there is less room for particularity in diet; each person in health eats when and what his circumstances may enable him to obtain, or the customs of society place before him. The pursuit of a constant occupation, the mind being fully engaged, leaves little time or inclination for over-attention to culinary refinements. The case, however, will be very different where undue bodily and mental exertions have impaired or weakened the bodily organs; and indigestion, with its long train of discomforts, follow. Then, indeed, it becomes necessary to avoid whatever articles of food are known to be, or may probably prove to be, difficult of digestion. It is, however, quite possible that extreme attention to such matters may, by its influence upon the nervous system, aggravate the mischief it was intended to prevent or remove.

Fish, prepared in various modes, has constituted the staple article of food of many tribes and people, in all ages of the world. Where animal food cannot be obtained, or should not be taken, nourishment can be afforded from fish. The readiness with which the flesh of fish is digested varies with their character and mode of cooking. Oily fish, and those cooked in oil, melted butter, etc., are not easily digested by weak stomachs. All sauces, etc., prepared with butter or oil, are better left untouched. Salted or dried are less digestible than fresh fish. Lobsters, crabs, and oysters, can seldom be eaten with impunity by invalids, or the subjects of dyspepsia. Mussels, and oysters also, are prone to produce acute attacks of nettle-rash in peculiar

constitutions. Fish, and shell-fish of all kinds, containing more water in their composition than exists in the mature flesh of higher animals, are necessarily far less nutritious.

Digestibility of certain Articles of Food.—From Dr. Beaumont's tables it appears that the following articles were converted into chyle—that is, digested—in the times indicated:—

	H.	M.		H.	M.
Rice, boiled soft	1	0	Oysters, stewed	3	30
Apples, sweet and ripe	1	30	Eggs, raw	2	3
Sago, boiled	1	45	„ soft boiled	3	0
Bread, stale	2	0	„ hard boiled	3	30
Milk, boiled	2	0	Beef, roast or boiled	3	0
Cabbage	2	0	„ salted	5	30
Baked custard	2	45	Mutton, roast or boiled	3	0
Parsnips, boiled	2	30	Pork, boiled	3	30
Potatoes, roasted	2	30	„ salt and boiled	4	38
„ boiled	3	30	„ roast	5	30
Turnips, boiled	3	30	Veal, roasted	5	30
Carrots, boiled	3	15	Turkey and goose	2	30
Butter and cheese	3	30	Domestic fowls	4	0
Venison	1	35	Wild fowls	4	30
Oysters, raw	2	3			

This table is to be regarded merely as an approach to the relative digestibility of different articles of diet. The experience of individuals, if accurately recorded, would often differ considerably from the times here stated. It is matter of common observation that young meats will not digest with a great many persons so readily as mature meats. The stomachs, also, of most persons will more easily digest mutton than beef; while, on the other hand, there are dyspeptics who always suffer from heartburn, etc., after eating mutton.

Tripe, brains, liver, and sweetbread are generally sooner digested than the muscular flesh. The tongue, heart, and kidneys approximate in character, and in digestibility, to meat.

Alcoholic Stimulants.—Alcoholic stimulants are important aids in the treatment of chronic disease, and in those maladies induced by, or characterized by debility. Where the condition of the stomach prevents the administration of meat, or even of beef-tea, alcoholic stimulants will often support the system until health so far returns as to admit

of the digestion of more directly nutritious substances. The extent to which these should be administered in disease must be determined by the state of the pulse. If its beats be feeble and irregular, or varying at different parts of the day, the administration of stimulants is pretty surely indicated. If after their use the pulse increases in frequency, and the face flushes, they must be withheld for a somewhat longer interval. If, however, after the administration of a moderate stimulus (for example's sake, we may say a tablespoonful of port wine in a case of low fever) the pulse be found to gain in force and fall in frequency, without flushing the face, the dose may be repeated with safety at the end of three hours. This illustration may serve for guidance in other cases.

It may, moreover, here be repeated, that diseases generally bear the use of stimulants more frequently, and with greater impunity, than they did in former years. Upon no subject whatever has there been greater diversity of opinion than upon the employment of alcoholic beverages as food. Upon no question could there be greater unanimity than upon the frightful amount of moral and physical evil that the abuse of these drinks has introduced. From thence it is very illogically argued that they should never be used as articles of diet under any circumstances. The abuse of a thing, however, is no argument against its use. Fully admitting all the evils of the abuse, we cannot shut our eyes to the advantages of the use of alcoholic beverages, both as articles of diet and as medicines, seen in daily experience.

Much has been written by the advocates of total abstinence to show that alcohol cannot, under any circumstances, be regarded as food, because, say they, chemistry teaches that alcohol taken into the stomach passes out of the body unchanged, and is the alcohol that was taken into the stomach. This, however, is wanting in proof. No chemist has recovered the alcohol in the way thus assumed from incomplete experiments. In opposition to all theories made to meet views there are the stubborn facts that the inveterate drunkard lives almost entirely upon alcohol, and that temperance in the use of these beverages is found to invigorate the body and strengthen the mind by the daily exercise of self-denial and restraint upon the appetites.

If every individual, viewed in his physical conformation, and with regard to his external circumstances, could be referred to one healthy standard, and could follow a not over-hard or over-anxious occupation, together with regularity of sleep and diet, then, it may be, water might suffice to meet the requirements of thirst, which then alone would call for beverage. It is not, however, the ordinary lot of man to lead so easy and health-preserving an existence. The toils and the wear-and-tear of life and its anxieties do not permit a choice. Those are to be envied who, either from vigour of constitution or favourable conditions of life, can abstain with impunity from all alcoholic beverages in their ordinary diet. We believe, moreover, that there is a much larger proportion who could so do than there is of those who make the experiment. We cannot further dwell upon this topic, but must be content to enjoin temperance, and to advise total abstinence where it may be practicable. Total abstinence is always possible to children: the practice of giving alcoholic stimulants to these is highly reprehensible, inasmuch as it teaches a habit which those who have taught it would often too gladly break off in after-life, even if it have not in the meantime done positive and irreparable injury to their bodily health.

A few remarks upon the various forms of alcoholic beverages are subjoined.

Malt Liquors are probably the least injurious, by reason of their containing a variety of nutritious solid matters which are not contained in wine or spirits. In diseases marked by debility, the malt liquors in which hops or other wholesome bitters preponderate are serviceable articles of diet. As an ordinary beverage for those who have to undergo fatigue, malt liquors are refreshing and salubrious. They have been emphatically and not incorrectly spoken of by German writers as liquid bread. Malt liquors dispose to corpulency and disorders of the liver, if taken by the sedentary and indolent,—that is to say, if not taken in moderation or in proportion to the activity or exertion expended.

Wines — of which there is an infinite variety as to strength, flavour, and composition (and, it may also be added, of manufacture)—are here spoken of with reference

to the ordinary standard of port or sherry. The quantity of alcohol in port is, on the average, about 35 to 45 per cent.; in sherry, about 32 per cent. Other foreign light wines contain about 20 per cent. Sugar, acids of several kinds, and colouring matters, are also contained in wines. Of the use of wines as an article of diet, much the same may be said as of malt liquors,—with this difference, that wine does not so generally produce bilious disorders, neither does it predispose to corpulency so much as do malt liquors. Wine must be regarded either as a luxury or as a medicine: as the latter, it is invaluable. For ordinary diet the light French wines are the most wholesome. When we say that as a medicine it is invaluable, we extend its medicinal use to cases short of severe illness; as a preventive, by its stimulating the vascular and nervous systems, it may ward off the affections induced by fatigue, anxiety, or exposure to other causes of disease, if its influence has not been impaired by its abuse. As a remedy in low or typhoid fevers in extreme debility, port-wine or champagne may be given almost *ad libitum* without causing intoxication, but followed by most beneficial effects.

The wine to be used for medicinal purposes should not be sweet or acid, as both interfere with digestion.

Spirits.—Of these, as articles of diet, under the forms of gin, brandy, rum, etc., we unhesitatingly speak in the strongest terms of condemnation. There is no valid excuse for the constant use of raw spirits by those who, requiring alcoholic beverages, can obtain malt liquors. A small portion of spirit diluted freely may be required by those who undergo daily great fatigue, and have not access to beer. Otherwise, spirits should not be taken unless for strictly medicinal purposes. The daily habit of spirit-drinking (with the above exceptions) is a daily habit of digging one's own grave. That this language is not merely figurative, let witness the wards of any large hospital, where the investigator may trace the deadly work of *gin* only too abundantly.

In order to render the preceding remarks upon diet more practically useful, we submit the following table, which has been prepared from the dietaries of the principal hospitals

in London; at the same time, a few remarks upon the number and hours of meals for the healthy are also subjoined.

Dietary for the Sick.

	Full Diet.	Middle Diet.	Low Diet.	Fever Diet.
BREAKFAST	Gruel, or milk porridge; or 1 pint of tea, ¼ pint of milk; 4 oz. bread; 1 oz. of butter, a small portion of meat, or 1 egg.	Porridge, gruel, or milk.	Gruel or tea.	Thin water-gruel.
DINNER ...	8oz. beef or mutton; 8 oz. potatoes; 1 pint beef-tea or soup, with peas or potatoes, three times a week; 1 pint porter, *men*; ½ pint of porter, *women*.	Fish, or half the quantities of meat and potatoes; beef-tea.	Broth, tapioca, sago, or rice pudding; beef-tea.	1 pint of milk.
SUPPER ...	1 pint of broth or beef-tea, or milk porridge.	1 pint of milk.	Gruel.	Gruel.

Meals for the Healthy.—The number of meals and the time when they are taken will vary greatly with the age, occupations, and other circumstances. Three meals a day are sufficient for most persons, viz. breakfast, dinner, and tea or supper; the time at which these are taken is of less importance than regularity therein.

Breakfast being the first meal taken after the body has been refreshed by rest and sleep, is generally most easily digested. This meal should therefore be taken as soon as possible after rising, before the nervous energies have been expended by work or exertions of any kind. This is especially true with regard to children, whose health is often seriously impaired by their having to wait two or three hours after rising before they breakfast, even if not compelled at school to prepare their daily tasks in the mean-

while. Until the stomach has received its due supplies, the system is prone to all the external causes of disease, and its nervous energy is soon exhausted. There may be exceptions, but as a general rule it is not wise to undergo exertion or fatigue before breakfast.

Dinner should be taken about five or six hours after breakfast by all whose occupations or circumstances will permit them to do so. Fashion, or business, obliges many to take a light dinner, which is called luncheon, about midday, and a second dinner towards the hour for supper. This second or late dinner if heavy is productive of drowsiness and a lethargic condition of the brain; but with many persons it is the only time of the day at which the meal will be comfortably digested, because it is the only time at which rest can be observed, and the active occupations of the day can be suspended. The midday meal, if not too large, is preferable, as it affords the means of recruiting the exhaustion of previous activity, and supplies the sustenance for subsequent exertion.

Tea cannot be regarded as a full meal unless taken with some solid food, as a substitute for supper. Generally it is a wholesome and refreshing supplementary meal. Both tea and coffee have active properties; they promote the processes of digestion and nutrition, if not taken too strong, too hot, nor too soon after dinner.

Supper, although usually regarded as an unwholesome meal, is not so if taken in moderation, by those who dine early in the day and who have been subsequently actively employed. It is obvious that, in the state of fatigue and of a certain degree of exhaustion of the nervous system consequent upon the fatigues of the day, the digestion of a *heavy* meal cannot take place so perfectly as at breakfast, when that exhaustion has been recruited by sleep. Under these circumstances a light meal will be refreshing and wholesome, whereas a full meal of meat, beer, spirits, etc., can only overload the stomach, cause indigestion, disturb sleep, produce nightmare, and interfere with the beneficial influences of the night's rest.

CHANGE OF CLIMATE.

The low temperate, the changes of seasons, the purity of

the air, the peculiarities of food and clothing, in temperate climates, bestow upon their inhabitants greater activity of all the bodily functions. The high temperature, moisture of the atmosphere, the animal and vegetable effluvia of hot climates, diminish the activity of the respiratory functions, while they increase those of the skin and liver.

The consequence is, that when a European arrives in a hot climate, the activity of the blood-vessels being augmented by the increased temperature, at the same time that the functions of the lungs and skin are diminished, the liver is called upon to perform duties to which it is probably inadequate. The increased activity of the functions of the liver is too frequently further increased by injudicious dieting.

It is therefore obvious that under the above circumstances the emigrant should live abstemiously. The head should be protected from the rays of the sun. Perspiration should be encouraged by moderate exercise. Exposure to cold and dews of night, to malaria, and the indulgence in over-stimulating food and beverages, should be avoided.

For the reasons above stated, the reverse change, viz. from a warm to a cold climate, throws additional work upon the internal organs, by depressing or impeding the functions of the skin, aggravating diseases of the liver and stomach, and developing disease in the lungs. Hence the precaution to be observed is to promote the action of the skin by warm clothing, avoiding exposure to cold, and ensuring regularity of the functions of the bowels and kidneys.

DISINFECTION.

There are two principal means of destroying the contaminating influences of infectious or contagious diseases. These are—1. pure air, *i. e.* ventilation and cleanliness; 2. the use of so-called disinfecting agents.

No fumigation by vinegar, chloride of lime, or any other substance, is of equal value with the admission of pure air, and the observance of cleanliness, both as regards the patient and the attendants. Every infectious disease is propagated by a poison which loses its activity by dilution. If, therefore, ventilation be effectually performed and clean-

liness be strictly observed, near contact with a patient may be fearlessly undertaken by those whose duty it is to attend.

It is, of course, necessary to be careful that in performing ventilation, the surface of the body be not chilled by a draught of cold air. Common sense and prudence will be able to avoid this, but less harm will come from the free access of cold air than from a close heated room.

Chloride of lime, carbolic acid, Condy's Fluid, etc., are useful in destroying unpleasant smells; but it is very much to be doubted whether they have any certain property of destroying the propagable material of contagious disease.

A powerful means of resisting the action of infectious agents is to divest the mind of all fear—to have a cheerful mind. It is a mistake often practised, to advise the taking a stimulant before entering infected atmosphere. The effect of a stimulus—*e. g.* a glass of spirits—taken in health, is at first to accelerate the action of the heart, and afterwards to depress it to a certain extent or cause some degree of collapse. Such a state is that which would rather render the constitution obnoxious to the causes of disease, than protect it from infection. The great object, on the contrary, under such circumstances, is to preserve the health as nearly as possible at its natural standard.

VENTILATION.

The removal of the air that has been vitiated by respiration, is essential to health. So also is the removal of impure air emanating from the bodies of the sick, and from animal and vegetable decomposition. This renovation goes on, on the grandest scale, on the surface of the earth, where heated air ascending, cooler air falls, thereby forming currents and winds. In cold climates, and in the cold seasons of temperate climates, it is not possible to imitate the processes of nature without adopting contrivances for the purpose of protecting the human body from cold and damp. This is generally practicable to a sufficiently comfortable extent in the dwellings of the wealthy. It is in the cottages and huts of the poor that it becomes almost an impossibility to admit fresh air at the same time that warmth is retained. The principle to be borne in mind is,

that an upper aperture be provided for the free egress of the warmer impure air, while equally free admission is provided below for a pure and cooler atmosphere. The contrivance by which the principle is applied must depend on the circumstances of each household.

VENTILATION AND TEMPERATURE OF THE SICK-ROOM.

The room in which the patient is to be placed requires some little consideration. Ventilation should be secured by an open chimney or fire-place, and by windows which shall open from above. In the event of infectious maladies, this is a point of great importance. In mild weather a portion of the upper sash of the window should always be drawn down, so as to admit of a free change of the air. In winter, or cold weather, a fire should be lighted, so as to keep the temperature at about 60°, ensuring at the same time free access of fresh air.

In acute diseases of the lungs or air-passages—such as croup, laryngitis, or whooping-cough—it is very important to protect the patient from changes of temperature, which in these diseases will excite paroxysms of coughing, or difficulty of breathing. The vapour of hot water diffused through the room is of great service, by allaying the tendency of dry atmosphere to irritate the air-passages.

Bed-hangings should be, as much as possible, dispensed with in the sick-room, as they obstruct the free access of the air to the patient, and harbour dust, which is very often the medium of the conveyance of infection. The poisons of smallpox and other infectious maladies are quickly diluted with air, and are generally thereby disarmed of their power; hence it is that medical men seldom convey these diseases. Where, however, the ventilation of the sick-room is neglected, the poison becomes concentrated, and rather gains than loses intensity.

In these cases, when the weather is too cold to permit of constantly open windows, a good method of entirely changing the air of the room is to cover the patient completely with the sheet, and open the windows and doors for about a quarter of an hour or twenty minutes. This should be done twice a day.

LIGHT.

Too much light should not be admitted into a sick-room. All diseases attended with headache or other symptoms referable to the brain, are aggravated by a strong light. In other cases sleep may be prevented thereby. The aspect best suited for a sick-room is that by which strong light and too great heat of the sun in the summer season are avoided. The actual degree of light that shall be admitted must be regulated by the patient's feelings. A room altogether darkened is not advisable: in fever cases, in which delirium is very commonly present, the twilight of a darkened room often gives rise to hallucinations.

FURNITURE, ETC.

There should be no more furniture than absolutely required for the use of the patient and the attendants. All jugs, glasses, bottles, etc. not in actual use should be removed. Dirty linen should be removed as soon as possible into water with some disinfectant; and in fevers, the linen, sheets, etc. should be changed or aired daily. Carpets should be removable, so as to admit of the floor of the chamber being kept clean by sweeping or dry scrubbing. At the same time slips of carpet are desirable in order to break the noise of footsteps. Articles of woollen fabric—such as curtains, carpets, blankets, etc.—retain infection more firmly than linen or calico. Bedclothes and bedding should, after having been used in infectious diseases, be boiled in washing; or they should be stoved at a temperature of not less than 200°, to destroy infection. The hands of attendants should be washed before eating.

It may be scarcely necessary to dwell upon the necessity for cleanliness in the sick-room. Medical men are, however, often made familiar with the ill effects of want of cleanliness and order in the arrangements of the chamber of illness. All cleansing operations, so far as practicable, should be carried on out of the patient's sight and hearing, as these often cause much disturbance, discomfort, and sleeplessness.

Frequent washing is to be observed in infants, and followed by the free use of the powder-puff, to avoid excoriation from irritating or acrid excretions.

ON NURSING, ETC.

QUALIFICATIONS OF A NURSE.

Although every woman is naturally endowed with the highest qualities of a good nurse, nevertheless a few hints on the qualifications and duties of that office may not be misplaced.

The age of a nurse should be such as to ensure physical endurance of fatigue and disturbed rest,—gravity and steadiness of deportment, devoid of the irritability often attendant upon advanced age. Bodily strength, combined with bodily and mental activity, kindness of disposition, cheerfulness, and patience, are all prime qualifications for encountering the peevishness of children, or the restlessness of adults in illness.

A nurse should not give way to gossiping. This habit causes continual noise in the chamber, and often does infinite mischief in a family. She may be religious—not controversial—remembering that although her province is not preaching, nevertheless, by example, and even by judiciously timing a remark, she may drop a word in season when the mind is peculiarly open to the best impressions.

A nurse should be *cleanly* and *sober*. Spirit-drinking is one of the most certain disqualifications for the proper performance of her duties: she is thereby rendered drowsy, if not also offensive to the delicate sensibilities of an invalid. Good nutritious food, with a moderate allowance of malt liquors or wine, and daily exercise for an hour or two, should, if possible, be secured to a nurse.

While nursing patients suffering under infectious maladies, the attendants should be careful to take sufficient nourishment. But excess of stimulants is prejudicial, by laying them open to the action of infection through the depression that follows.

A nurse should be able to read; otherwise she may make mistakes in the directions for administering medicines.

Experience is a very valuable quality in a nurse, but this must be kept in subjection to medical opinion, where a medical attendant can be obtained. It must not be forgotten

that the experience of an uneducated person often degenerates into prejudice and obstinacy: this "experience" too often consists in the entire observation of points of resemblance, totally overlooking points of difference.

A nurse who is able to use some little discrimination, may be able not only to afford comfort to her patient, but may also render essential benefit so far as regards the disease; more particularly so in cases of children who cannot always express the cause of their uneasiness. Thus, the nurse may observe that in affections of the chest a half-sitting posture is better than lying flat on the back, as it allows more free access of air into the lungs. She will remember the importance, in affections of the brain, of keeping the room quiet and darkened, and not allowing the head to be heated by soft downy pillows. She will bear in mind that children may be amused in illness, as well as in health, although it may be in a different mode: the narration of light tales, especially from Scripture history, will always please and engage the attention of the little patient,—oft-times it will be the source of much future happiness.

LEECHING.

Leeches should be applied, if possible, over a bony part, so that pressure may be made more firmly and steadily to stop the subsequent bleeding. With children, this rule should never be departed from, as in them leech-bites often bleed long and profusely. Many children have suffered more harm from the loss of blood after leeching, than they would have incurred had the disease for which the leeches were applied been allowed to take its course. With children, therefore, the bleeding of leeches should be stopped directly they drop off. In adults this rule is not so imperative. Sometimes, even, as in severe inflammation of the bowels, it may be desirable to promote their bleeding by warm fomentations or poultices.

Steady pressure with the point of the finger upon a fold of rag or lint, laid upon the bite, will generally suffice to arrest the flow of blood; or the application of cold water will sometimes be successful. If these means do not answer, refer to *Leech-bites* in the section on *Accidents*.

Before the leeches are applied, the part should be made

clean by washing, and then wiped dry. The leeches should be dried between the folds of a soft towel, and placed in a wine-glass or small box, which should then be inverted upon the part to which they are to be applied. Or if the part will not admit of this being effected, the skin may be scratched with the point of a needle just enough to draw blood; upon which the leeches will readily take hold.

After leeches have been used, they may be preserved for re-application, if immediately put into a bottle or other covered vessel half filled with fresh water, which should be changed at least once a week.

It may be stated that one full-sized leech will draw about one teaspoonful of blood.

BLISTERING.

This is obtained by a plaster or solution of cantharides (see *List of Medicines*). The plaster should be kept on the skin from ten to twelve hours, in the case of an adult. When removed, the blister should be snipped with a pair of scissors; and when the fluid has escaped, the surface should be covered with a soft pad of white wadding from which one of the outer skins has been stripped. If the discharge soak through this covering, another piece of wadding should be laid upon the first. This dressing may be left to itself; when removed in a few days, the surface beneath will probably be found to be entirely healed. This method of dressing a blister is far readier and less painful than the application of ointments.

Blister-plasters should not be allowed to remain on the skins of infants, or very young children, longer than two or three hours. When removed, if the skin have not risen to a blister, a warm bread-and-water poultice will produce that result. If the plaster be suffered to remain several hours, the consequence is frequently that severe inflammation and sloughing of the skin follows.

There are circumstances under which it is not desirable to heal a blistered surface. The dressing above directed is then to be replaced by some irritating or mercurial ointment. These particular cases have been referred to in describing the treatment of diseases.

LOTIONS.

A lotion is generally applied for the purpose of reducing the temperature of a part. This is obtained by the evaporation of fluid from moistened rags laid upon the surface. These are of service in local inflammation and in headaches. Where a lotion is intended to allay pain (*e.g.* opiate or hemlock lotion), the moistened rag may be covered with oil-silk to prevent evaporation.

It may be necessary, in some cases of fever, to apply a lower temperature than can be obtained by lotions. Ice is then to be used. This should be applied in a bladder or waterproof bag, which should be half filled with ice, and then emptied of air before it is tied up. The heat of the part will dissolve the ice, but until all this is dissolved it will keep the water at 32°, or freezing point.

Sponging the surface of the body promotes perspiration, allays irritation of the skin, moderates the frequency of the pulse, and soothes the nervous system. In eruptive and other fevers, the nurse may give great comfort by sponging the entire surface of the body with tepid water, or warm vinegar and water, twice or thrice daily.

FOMENTATION

Is applied by flannels or sponges wrung out of hot water, or that have been heated in a culinary steamer, either with or without the addition of turpentine, or spirits of camphor, or laudanum. These are generally required to be continued from half an hour to an hour, being repeated as quickly as they become cool.

WARM BATHING.—HOT BATH.

The sight of a warm bath is often matter of alarm to a young child, and by exciting its cries and resistance, unless managed by a little manœuvring, will be productive of as much harm as good. If there be this objection to the bath, a blanket may be laid over it, and the child placed upon the blanket, being very gradually let down into the water. It is not absolutely necessary to take off the child's night-clothes before it is put into the bath,—so that even any preparations that may excite the child's fears are avoided.

The temperature of the water need not exceed 80° to begin with, hot water being gradually stirred in until it rises to 98° or 100°; the child will not then be frightened by the heat. If a thermometer be not within reach, the nurse's hand should judge that the heat does not exceed what a child will comfortably bear. From five to ten minutes is usually long enough to keep a child in a hot bath. An adult may remain twenty minutes, or longer, if faintness does not occur.

POULTICES.

The object of a poultice is generally the application of warmth and moisture. There is no mystery or special virtue in poulticing, as is sometimes supposed. Whatever in the readiest and cleanliest manner presents these conditions will constitute the best poultice: whether it be bread or oatmeal, or bran, or linseed-meal scalded with boiling water, the essential principle is the same. The cleanest method of obtaining these conditions is to be found in the application of several folds of lint or rag soaked in warm water, and covered with oil-silk.

Poultices are, however, sometimes required to be stimulating to the surface. For this purpose they may be made of the pulp of carrot scalded in the same manner as bread; or by the addition of a teaspoonful of solution of chloride of lime to a bread poultice.

Yeast poultice, formed of equal parts of yeast and flour, or bread crumb, and made warm, is of use in foul ulcers attended with offensive discharges. The same end of obviating offensive odours is obtained by mixing powdered charcoal with twice its quantity of bread or linseed poultice.

The best way to make a good and smooth linseed-meal poultice is to stir the meal into the hot water, not to add the hot water to the linseed meal.

A mustard plaster, or *sinapism*, is to be formed either by making a thick paste of flour of mustard and hot water, or of equal parts of bread crumb and flour of mustard. A ready way of applying a sinapism to the chest of a child may be practised when the child is in a hot bath:—a sponge soaked with hot water should be sprinkled with flour of mustard, and pressed upon the skin for five or ten minutes.

CONVALESCENCE.

This section will not be inaptly concluded by a few hints upon the MANAGEMENT OF CONVALESCENCE. During recovery from acute disease, great care is to be taken that the stomach be not overtasked by large meals. At this time the digestive functions are more than usually active, and the appetite keen. It is safer to eat a little and often, under these circumstances, than to take full meals at longer intervals. Exercise in the open air, if the weather permit, should be taken daily. It is important to avoid excessive fatigue before the bodily energies have recovered their full power. The free access of daylight should be admitted to the chamber of the invalid. Bathing either by the tepid plunge-bath or shower-bath, with active friction of the surface, should be observed.

In the more gradual convalescence from chronic maladies, the restrictions above mentioned are equally requisite, and must be continued over a longer period of time. The diet, as during the persistence of the malady itself, may be of a liberal character. In either case more hours should be devoted to sleep than when in health. Late hours should be avoided, and rising at moderately early hours adopted. This rule, which should hold good at all times, is still more imperative during convalescence from disease, whether acute or chronic.

Not less essential than any of the preceding suggestions is mental relaxation from the cares and toils of business Hence the benefit derived from change of air and scene. The restorative virtues of watering-places, in removing the effects of wear-and-tear in the struggle for existence, are to be attributed to the relinquishment of those toils, and to the consequently sanatory influence of a mind at ease, rather than to any special efficacy of a local or climatorial character.

THE PREVENTION OF SPREAD OF INFECTIOUS DISEASES.

To prevent infection coming off by the breath, the mouth, throat, and nose should be very frequently washed

with a disinfecting solution, such as water containing some Condy's Fluid or chloride of soda.

All vessels intended to receive the discharges from the bowels, etc. should have a dessert spoonful of carbolic acid with a little water constantly kept in them.

Rags should be used instead of handkerchiefs for removing or wiping away the discharges from the throat or nose, and they should then be burned.

The air of the room should be kept sweet and disinfected, and prevented from mixing with the other air of the house. This may be done by constantly keeping up a small fire, or by hanging over the doorway an old sheet well sprinkled with carbolic acid, or by both these methods.

No unnecessary communication should take place between the nurse in the sick room and the other inmates of the house. Nurses or attendants should wear glazed or smooth dresses in preference to rough and woollen ones, and should wash their hands before eating.

All handkerchiefs, towels, sheets, articles of clothing, etc. should be steeped in boiling water containing carbolic acid, or Condy's Fluid, or chloride of soda (a teaspoonful to the gallon) before they are taken out of the sick room.

Whenever slops from the sick room are thrown down closets, sinks, or drains, a teaspoonful of carbolic acid in a basinful of water should be thrown down after them.

When possible, all persons who have not had the disease should be sent out of the house to lodge elsewhere. The infectious principle is given off by the breath, and by all the discharges of the sick person, also from the skin until long after apparent recovery, so long indeed as any roughness remains upon it.

Persons with sore throat, when scarlet fever is about, sometimes give scarlet fever to other people. Warm baths with soap should be used repeatedly until all roughness of the skin has disappeared: a little carbolic acid added renders the washing more effective for disinfection. Until all roughness of the skin has disappeared, the person should not be allowed to mix with the rest of the family, and then only in new clothes, or in clothes which have been thoroughly disinfected.

It is illegal for any infected person to go, or for any one to take or send a child or other person suffering from any infectious disease, to any public place, such as the waiting room of a hospital or dispensary, or to a school, so as to endanger other persons or children. Penalty not exceeding 5*l*.

It is illegal to give, lend, sell, move to another place, or expose any bedding, clothing, rags, or other things, which, by having been in a room with the sick person, have become infected, and liable to convey the disease to another person, until such things shall have been properly disinfected. Penalty not exceeding 5*l*.

It is illegal to let any house, room, or part of a house, in which any person suffering from any dangerous infectious disease has been, to any other person, until it, and all articles in it, have been properly disinfected—this includes any room in an inn. Penalty not exceeding 20*l*.

Should the Sick Person Die.—The body should not be removed into another room to spread infection over the house. It is still infectious.

No articles of bedding or clothing should be removed from the room until disinfected as formerly stated.

In washing the body, carbolic acid (a dessert spoonful to the gallon of water) should be used.

The body should be put into the coffin as soon as possible, *with a disinfectant*. Macdougal's Powder may be used, sprinkled freely underneath and over the corpse, or rags soaked in strong carbolic acid may be laid beneath it and over it (beneath the clothing). The coffin should be screwed down and the body *buried as soon as possible*.

DISINFECTION OF A ROOM AFTER SCARLET FEVER, OR OTHER INFECTIOUS DISEASES.

The infection hangs about a room or house for a very long time, and is difficult to dislodge. Fumigation with sulphur, however, may be employed by any one, the paper being previously wetted with carbolic acid, stripped off, and burned. A quarter of a pound of brimstone, broken into small pieces, should be put into an iron dish (or a lid of an iron saucepan turned upside down) supported by a

pair of tongs over a bucket of water. The fireplace and other openings, such as the crevices of the windows, are then to be closed, by pasting paper over them, and a shovelful of live coals is to be put upon the brimstone. The door is then to be quickly shut, the crevices pasted up with paper, and the room kept closed for five or six hours. Articles of clothing hung up loosely, or left uncovered in the room, are fumigated at the same time.

After this, a thorough cleaning should be made; every thing that can be, washed with a little carbolic acid in the water, and boiled. The room should then be lime-whited and afterwards left unoccupied with the windows open for a week or a fortnight.

SECTION I.

ALPHABETICAL ARRANGEMENT

OF

DISEASES,

THEIR

SYMPTOMS, CAUSES, AND TREATMENT.

INTRODUCTORY OBSERVATIONS UPON SYMPTOMS.

The science of Medicine can be comprehended by those alone with whom it forms the primary—the exclusive—object of study. Even to these a long life is insufficient for the apprehension of all its phenomena and laws. So numerous and so varied are the features of disease, so changing and so obscure are many among its causes, that what may be true of the nature and treatment of a malady to-day, may be to a great extent untrue a few years hence. The most accurate observation and an undivided attention, therefore, are demanded of those who would acquire a knowledge of the *science* of medicine. The author of the present work does not pretend to teach the science of medicine to those who have neither the opportunity nor the aptitude for its study: he professes only to supply his readers with a succinct and clear summary of the symptoms, causes, and treatment of diseases, accidents, and other occasions when medical assistance cannot be obtained. He has designedly avoided entering upon any theoretical explanations of the nature of diseases, or of the modes of action of remedies, under the conviction that such topics more frequently perplex than enlighten the non-professional reader.

When, as has been assumed with regard to the readers of the present work, the treatment of disease must be undertaken by those who have not been prepared for so responsible a task by appropriate education, the *safety* of the instruction given is the point of paramount importance therein. Under this impression, the employment of those

medicines only has been recommended which can be safely entrusted to the hands of any intelligent or discreet person. An abundant armoury of powerful weapons for combating disease remains, after the exclusion of those partaking of the characters of deadly poisons. In order, moreover, to afford security in the administration of medicines, the author has stated the doses of these, under six periods of age, in extended tables, which have the merit of facility of reference. The exercise of judgment and attention will enable the reader to select the medicines, or combinations thereof, that shall be suitable to individual cases.

Guided by the same principle, the recommendation of blood-letting has been avoided, being an operation which is less frequently called for by disease in the present day than formerly, and which consequently is the less safe in non-professional hands, even were they skilful enough to perform the operation without risk of injury, which is not the case.

As large classes of disease present many features in common, each individual malady preserving at the same its appropriate symptoms, the author has, wherever it has appeared to be requisite, pointed out these as their *distinctive* symptoms. This part of the study of diseases forms what is technically denominated their *diagnosis*. The detection of points of difference, and their separation from those merely of resemblance, presents one of the greatest difficulties in the practice of medicine. It is, moreover, to the forgetfulness of this important feature that is owing much of the erroneous reasoning that has found its way into the practice of medicine.

The contents of the following pages may perhaps be rendered somewhat more available by a few observations upon the meaning or value of the most prominent symptoms of disease in general.

In ascertaining the nature of an illness, the first thing will be to notice all that we may learn by our own eyes. A glance will tell of changes in the physiognomy:—whether the countenance be pale or flushed; whether the whole frame or part thereof be wasted or enlarged; whether any eruption be apparent on the surface; whether the free use of the limbs be retained, or lost, or impaired.

Having observed the presence or absence of change under either one or the other of these points, we have something to start from; and, as one step leads to another, we are soon brought to the seat of disease.

Thus, if the body be sunk down in the bed, with little or no power of moving, or changing the posture, a state of extreme debility is inferred. If there be also a dusky hue of the countenance, and a dark fur on the lips and teeth, the attention is called to the possible existence of some low or typhoid fever. If the patient cannot lie down in the bed, or is obliged to lie on one side rather than the other, some disease of the respiratory organs may be inferred. The rapidity of breathing, the presence of cough, the state of the pulse, and duskiness of the countenance, will further point to the chest as the direction in which the disease is to be found.

Inability to move a limb should direct attention to the state of the brain or nervous system. If there be headache, giddiness, and intolerance of sound or light, we may suspect some affection of the brain; or these may be among the symptoms of that general constitutional disturbance which is known as fever.

In children the countenance is an important index of the nature of a malady. The pain or uneasiness, which they have not words to express, may be suspected by watching their faces, either sleeping or waking. Knitting of the brows, or frowning, should not be disregarded, as its continuance sometimes indicates a morbid condition of the brain or nervous centres.

Prominence of the eyeballs, and puffiness of the eyelids, frequently attend disease of the heart, and dropsy; a dark ring round the eyelids is often an accompaniment of constipation, or of menstrual irregularity.

In serious or acute disease the expression of anxiety is often very strongly marked, and may be attended by duskiness or flushing, redness or discoloration of the countenance.

In feverish complaints the surface of the body is hot and dry. In jaundice it is of a yellow colour. In purpura and eruptive fevers the characters of the spots should be carefully noted.

Pain is the symptom generally regarded and looked for as the most important indication of disease. In investigating its existence and character some caution is required. In hysteria, more than in any other disorder, this symptom is liable to be misinterpreted. It is often found to be excited by pressure anywhere or everywhere on the persons of hysterical females. It must therefore be borne in mind that the presence of an acute disease in such cases is not to be inferred unless other characteristic signs be present.

Pain is generally most acute in the inflammation of certain parts; as in pleurisy, or peritonitis. It is often of a heavy dull aching character in rheumatic affections, and in inflammation of some internal organs. In cancer it is cutting and stabbing.

A distinction generally holds between pain caused by spasms or cramp, and that resulting from inflammation. Spasm, or cramp, is usually relieved by pressure, while in inflammation the pain is aggravated by pressure.

The existence of cough, or difficulty of breathing, should be carefully noted. The character of the expectoration, if any, should also be observed, with reference to the state of the chest.

The condition of the circulation requires especial attention. The pulse at the wrist is the point at which we usually judge of its force, frequency, and regularity. Practice alone can give perfect acquaintance with variations in the force of the pulse; no merely verbal description can teach these. There will, however, be little difficulty in distinguishing between a strong, full pulse, and a feeble beat of the artery under the finger. Seventy-two beats in a minute are about the average for healthy adults. The pulse is more frequent in children. A frequency, near or over a hundred beats in a minute, or less than fifty, is not often met with in health, and may, therefore, safely be regarded as an indication of disease. It must be observed, however, that change of posture from lying down to sitting up, or any other muscular exertion, has the effect of accelerating the pulse, the number of which should be observed when the patient has been quiet for a few minutes, whatever the posture may be. Irregularity of the pulsations is very commonly met with in nervous or de-

bilitated individuals; therefore its occurrence alone need not excite alarm or anxiety.

However rapid, and strong, or sharp may be the beats of the pulse, in an acute and serious disease, if the number be steadily maintained, although for several days, it may be looked upon as a favourable sign. Slight fluctuations need not produce much misgiving; but a pulse now beating many times above a hundred in a minute, then a few hours afterwards several beats below that number, shows a feebleness or flagging of the nervous energies—an unfavourable indication of the restorative powers of the constitution.

Not further to anticipate the detail of symptoms given in the body of this work, we may here tabulate a few of the most prominent symptoms of disease, so that by reference to a symptom the reader may, if at a loss, be guided to the disease in which the symptom occurs.

TABLE OF SYMPTOMS AND DISEASES.

Symptoms.	Diseases.
Headache	Bilious disorders.
	Hysteria.
	Rheumatism.
	Congestion of brain.
	Apoplexy.
	Paralysis.
	Fevers, eruptive and otherwise.
	Catarrh.
	Influenza.
Drowsiness & Giddiness .	Congestion of brain.
	Epilepsy.
	Paralysis.
	Bilious disorders
	Indigestion.
	Fevers.
	Debility.

Symptoms.	Diseases.
DELIRIUM OR INCOHERENCE	Fevers. Inflammation of brain. Delirium tremens.
SLEEPLESSNESS	Indigestion. Delirium tremens. Fevers. Hypochondriasis. Hysteria.
EYES, bloodshot and watery .	Catarrh. Fevers. Inflammation of brain. Measles. Ophthalmia.
— intolerant of light . .	Strumous ophthalmia. Inflammation of brain. Fevers.
— squinting	Congestion of brain. Inflammation of brain.
— smarting	Ophthalmia.
— pupil inactive or sluggish	Congestion of brain. Apoplexy. Water on brain. Amaurosis.
— sallowness	Bilious disorders. Fever.
— yellow	Jaundice.
EAR, noises in	Accumulation of wax in the ears. Fever. Brain, inflammation of. Hypochondriasis. Nervousness. Congestion of brain.
TONGUE, furred	Disorders of stomach. Disorders of liver. Indigestion.

Symptoms.	Diseases.
TONGUE, furred	Stomach, disorders of. Influenza. Fevers.
— black	Typhus fever. Yellow fever.
— scarlet	Scarlet fever.
— flabby and notched at edges	Debility.
— sores on	Thrush. Smallpox.
THROAT, sore	Quinsy. Relaxed throat. Scarlatina.
— swollen externally	Mumps. Goitre. Quinsy.
HOARSENESS	Croupy cough. Croup. Catarrh. Hysteria. Consumption.
COUNTENANCE, anxious	Hypochondriasis. Palpitation. Angina pectoris. Acute inflammations. Fevers. Dropsy of chest.
— excited	Fevers. Delirium. Inflammation of brain.
— distorted	Apoplexy. Paralysis. Epilepsy. Hysteria.
— bloated and purple	Apoplexy. Inflammation of lungs. Diseases of heart. Epileptic fits.

Symptoms.	Diseases.
Bowels, confined	Bilious disorders Colic. Inflammation of bowels. Hypochondriasis. Hysteria. Chlorosis.
Urine, abundant and pale .	Hysteria. Nervousness.
— abundant and high-coloured	Diabetes.
— high-coloured, with sediment, and scanty	Dyspepsia. Bilious disorders. Jaundice. Fevers. Inflammations. Rheumatism. Gout. Scarlatina. Dropsies. Disorders of kidneys. Gravel, etc.
— bloody	Kidneys or bladder, inflammation of. Scarlatina.
Skin, sweating, and cold . .	Angina pectoris. Hectic fever. Debility. Consumption.
— — and hot . .	Rheumatism. Eruptive fevers.
— chilliness of	Fever. Catarrh. Debility.
— hot and dry . . .	Fevers and inflammation.
Pulse, rapid, full, and sharp	Inflammations. Fevers. Rheumatism. Gout.

Symptoms.	Diseases.
Pulse, rapid and small . .	Debility. Typhus. Collapse. Hysteria. Debility. Nervousness.
Shivering	Catarrh. Influenza. Fevers. Inflammations.
Limbs, pains in	Catarrh. Influenza. Rheumatism. Gout. Fever.
— cramps in	Diarrhœa. Cholera. Convulsions. Hysteria.
— loss of power in . .	Debility. Typhus. Apoplexy. Paralysis. Lead poisoning. Fainting. Catalepsy.
— swelling of	Dropsy. White leg. Rheumatism. Gout.
— twitching of . . .	Fever. Delirium tremens. Saint Vitus's dance. Hysteria.

ALPHABETICAL ARRANGEMENT OF DISEASES.

ABSCESS.

Symptoms.—Abscesses are of two kinds—acute and chronic.

The *acute* abscess is preceded by a throbbing pain of the part, with redness and swelling, and is attended with some degree of general feverishness. As the matter or *pus* forms it comes towards the surface, where the skin becoming thin, the abscess is said to point. At this spot, if gentle pressure be made, fluctuation, or the sensation of a fluid beneath the finger, will be felt.

2. The *chronic* abscess has the same signs, but they are less severe and slower in their progress than in the *acute* form; the swelling is generally more diffused; the fever hectic.

In either case, when matter or pus is formed, or, as it is technically termed, when "suppuration takes place," a shivering fit often occurs.

Causes.—Inflammation; local injuries; scrofulous or debilitated habit of body.

Treatment.—1. For the *acute*, the constant application of cloths dipped in cold water, or gin and water, will sometimes disperse an abscess in its earliest stage. If this do not occur, a poultice of bread-crumb or linseed-meal, or folds of lint or linen dipped in warm water, and covered with oil-silk, should be applied.

These warm applications may be continued till the abscess bursts; or, if the skin be very thin where it points, yet does not give way, so that the abscess spreads, or if the constitutional symptoms be severe, a puncture must be

made into it, at its thinnest point with a sharp, clean lancet, to let out the matter.

In the scrofulous abscesses that form in children's necks it is generally preferable that they be left to burst, as the scar is smaller than when they are opened by a puncture.

After an abscess is open, it should be allowed to discharge itself; pressure should not be used to evacuate its contents.

The feverish symptoms attending acute abscess require mild saline medicines (see Prescriptions Nos. 1, 2) and a light diet. After it has burst, or has been opened, a fuller diet should be allowed.

2. *Chronic abscess* may sometimes be dispersed by the application of tincture of iodine over the surface. If this do not succeed, poultices, or wet lint and oil-silk, should be applied. Tonic medicines (see Prescriptions Nos. 8, 12, 22, 30 or 32) and a full or stimulating diet are required including meat, wine, beer, etc.

ACNE.

Rosy-Drop; Carbuncle Face; Stone Pock; Whelk.

Symptoms.—There are two common forms of this disease; the one more frequently seen in youth, the other after forty years of age.

1. The former consists in an eruption of pimples on the face, forehead, shoulders, and chest. At first these are dark specks of the size of pin points, and hard; they gradually enlarge and become more inflamed, matter forms, a scab follows, and falls off by the end of seven or eight days.

2. In the latter form, that of more advanced life, the pimples are seen upon the nose, which they enlarge, and render a fiery-red colour. The duration of this eruption is often for years.

Causes.—The immediate causes are, derangement of the stomach and bowels; indiscretion in diet; irritating cosmetics. The remote causes are, hereditary predisposition; sanguine temperament; disorder of the female system; irregular habits.

Treatment.—There is little to be done by local applications in this disease. The attention is to be directed to the removal of the disorders of the digestive or other organs to which it may be supposed referable.

For local applications, see Prescriptions Nos. 58, 53 or 54.

For internal medicines, see Prescriptions Nos. 4, 5.

In the first form of this disease the progress of the eruption may frequently be stayed by squeezing the pimples when they first appear: By pressure, the secretion of the pore of the skin will be forced out in the shape of a maggot, for which this secretion has often been mistaken.

AGUE.

Intermittent Fever.

Symptoms.—Slight feverishness, thirst, lassitude, etc., occurring for an uncertain period. These are followed by the fully developed paroxysm, which consists of three stages —the cold, the hot, and the sweating.

1. The *cold stage* begins with chilliness, paleness of countenance, feeling of debility, headache, pain in the back and limbs, roughness of the skin, known as "goose-skin," sickness, loss of appetite, smallness and weakness of pulse, cold shivering, with chattering of teeth.

2. *Hot stage.*—After a variable period, from half an hour to three or four hours, the coldness and shivering are succeeded by heat and flushing of the countenance, a severe headache, a full, strong pulse, high-coloured scanty urine, intense thirst, etc.

3. *Sweating stage.*—After from two to eight hours, perspiration breaks out upon the forehead and face, extending over the whole body till it becomes profuse. The symptoms then subside, and leave only a sense of exhaustion. The patient is comparatively well until another paroxysm occurs.

The period at which this return takes place divides agues into several forms or types, viz.—

Quotidian, the fever returning every twenty-four hours.

Tertian, the fever returning every forty-eight hours.

Quartan, the fever returning every seventy-two hours.

The first is the commonest type. Irregularity, or intermingling of these types is occasionally met with, in which the duration, character, and times of the several stages are modified and obscured.

Either of these periodical types may also be modified or complicated by a predominantly morbid condition of particular organs, or by the condition of the whole constitution of the patient.

The period between the paroxysms is termed the *intermission*, and hence the name of the fever.

Distinctive characters.—Ague is distinguished from *remittent* fever by the complete intermission between the attacks, and by its distinct cold and sweating stages.

Hectic fever is distinguished from ague by its being attended with a permanently accelerated pulse, and by the clearness and flushing of the complexion, whereas in ague the skin is usually muddy or discoloured, and the countenance sallow; also by the absence of regularity of access of fever.

Consequences and terminations of ague.—These are often serious as regards the general health and vigour, which are not unfrequently left seriously impaired. The degree of injury will depend upon the intensity and duration of the causes, the continuance of the disease, and the treatment.

One general consequence of ague is a tendency to congestion of various internal organs. The organ which is most commonly found to suffer is the spleen, which, becoming enlarged, is popularly known as the "*Ague Cake.*" This, when large, may be felt below the ribs on the left side.

The effects of these internal congestions are inflammation of, and structural changes in, the several organs; dropsy, dysentery, diarrhœa, etc.

Ague has a tendency to return on very slight causes, even for several years.

Causes.—1. *Exciting.*—Local conditions of climate, marsh poison, marsh miasm, or malaria, arising from vegetable decomposition with moisture and a suitable degree of temperature.

2. *Remote or predisposing.*—Whatever depresses the mental and physical powers.

Treatment.—1. *During the paroxysm.*—During the cold stage apply external warmth, such as hot blankets, vapour-bath, bags of hot salt, bran, etc.; at the same time warm beverages are to be supplied. A mustard emetic will

often cut short the fit. These means will promote the sweating stage, and so accelerate the intermission.

If bilious or stomachic derangement exist, a warm purgative draught (see Prescription No. 28) should be administered after the action of the emetic has subsided.

2. The alleviation, however, of the symptoms during the paroxysm does not cure the disease. This is to be done by means employed *during the remission*. Of these none is so important as removal to a pure air. This will greatly assist the operation of medicine.

Two or three grains of sulphate of quinine dry or in solution (see Prescription No. 9), taken every six hours for several days, will usually be found sufficient. It may be found requisite to persevere with its use for a few weeks, even after the disease may seem to have passed off.

An occasional purge of castor oil, or senna and Epsom salts, is to be given to obviate costiveness.

AMAUROSIS. *See* BLINDNESS.

ANGINA PECTORIS.

Suffocative Breast-Pang; Spasms of the Heart.

(*See also* HEART, DISEASES OF.)

Symptoms.—Sudden, agonizing pain, darting from the left side of the chest up the left shoulder and down the arm, most frequently to the fingers' ends, but often not beyond the middle of the arm or elbow. It is accompanied with intense palpitation of the heart, anxiety, difficulty of breathing, faintness, and a feeling of approaching dissolution.

The attack may occur either while making some unusual mental or bodily exertion, or taking exercise, as walking, riding, etc., but it as frequently comes on during sleep, soon after midnight.

The duration of the attack varies from a few minutes to one or more hours.

Palpitation of the heart, or irregularity of the pulse, is often connected with this.

Distinctive Symptoms.—The attack might be mistaken for one of asthma, but the cough, wheezing, etc. of the latter are absent from the former affection.

Causes.—1. *Predisposing.*—It occurs most frequently

in men beyond fifty years of age, with a gouty or rheumatic condition of body, or indolent and sedentary habits. Anxiety, and depressing passions.

2. *Exciting.*—Over-exertion, sudden change of posture, change of temperature.

Treatment.—Instant relief is required during the paroxysm; the first stimulant that comes to hand may be administered. A strong dose of spirits and water, or, what is preferable, a teaspoonful of sal-volatile, or ether, in water, repeated at intervals of an hour or two if the fainting continue. Friction and mustard plasters applied to the chest, soles of the feet, and calves of the legs. The horizontal posture if there be faintness.

Forty, fifty, or sixty drops of laudanum may also be given if the pain be very severe.

When this affection has once occurred, it would be well that the patient should always be provided with medicine for a paroxysm; *e. g.*

> Sulphuric Ether;
> Spirits of Ammonia;
> Sal Volatile: of each half an ounce.
> Tincture of Opium ..... 2 drachms.
> Of which a teaspoonful should be taken in water, and repeated at the end of an hour if relief be not experienced.

The extent of the dose and frequency of its repetition must depend upon the intensity of the pain.

In the intervals the treatment consists in the avoidance of exciting causes, the correction of disorders of the digestive organs, and the administration of mineral tonics; *e. g.* sulphate of zinc, carbonate of iron, tincture of muriate of iron, or steel wine.

APHONIA.

Loss of Voice.

Symptoms.—Without loss of power in the organs of speech, the articulation becomes so enfeebled and difficult as to be inaudible or only in a whisper. Sometimes with, sometimes without, pain about the organs of voice.

Causes.—Common cold or catarrh; inflammation of the larynx; long-continued talking; paralysis; hysteria.

Treatment.—When it is caused by catarrh or common cold, it is often relieved by inhaling the vapour of ammonia, thus :—put a teaspoonful of sal-volatile in a three-pint jug, half fill it with boiling water, then holding the face close over the jug, breathe the vapour as long as steam is given off. At the same time warm moist cloths or bran poultices may be applied round the throat, other remedies for catarrh being also employed.

For treatment of inflammation of larynx, see *Larynx*.

When it proceeds from paralytic debility or from hysteria, it must be treated as for those affections.

APOPLEXY.

Symptoms.—1. *Premonitory*.—Drowsiness ; disturbed sleep ; heavy breathing ; headache ; fulness of the veins of head and face ; unusual irritability of temper ; giddiness ; sense of weight and fulness in the head ; loss of recollection, incoherent talking ; indistinct articulation ; impairment of vision, numbness and tingling of the extremities ; slight or partial paralytic attacks.

Of the attack.—There are three principal forms of apoplexy :—

1*st form*.—The patient suddenly falls deprived of sense or motion, as if in a deep sleep ; the face is flushed, breathing stertorous or snoring, pulse full and slow. In some cases convulsions are seen ; in others, contractions of the muscles of one side, with relaxation of those of the other.

This condition may continue from a few minutes to several days. Recovery may be complete, or paralysis may be left behind.

2*nd form*.—Sudden pain in the head, sickness and faintness, vomiting, paleness of face, coldness of surface, feebleness of pulse. Sometimess light convulsions.

The patient, in some cases, does not fall, but the attack of pain in the head is accompanied with transient loss of memory. In either case the first effects of the attack may pass off, and the patient will complain only of headache. After an interval, varying from a few minutes to several days, the brain again becomes oppressed ; the patient sinks into a state of coma, from which he never rallies.

Paralysis may occur, but in the greater number of cases is absent.

3rd form.—The patient is suddenly deprived of speech and of the power of one side of the body, without stupor, or if a slight degree of stupor occur with the first attack it soon disappears. He is sensible of his situation, and endeavours to express his feelings by signs.

There is a great variation in the further progress of this form. In some it gradually passes into more complete and fatal apoplexy; in others, recovery is speedy and entire; or it may be gradual, during several weeks or months; or paralysis, more or less in extent, may endure for life, ending in apoplexy or exhaustion.

The most marked forms of apoplexy are thus fully described; but it must not be supposed that it is intended hereby that all cases may be clearly separated one from another in the manner described. The several forms may run into one another. Nevertheless, it is practically useful to recognize these varieties.

Distinctive symptoms.—Apoplexy may be mistaken for a state of dead-drunkenness, for poisoning by narcotics, for asphyxia or suspended animation by hanging, or inhalation of noxious gases, for concussion of the brain, and for the deep sleep which follows epileptic convulsions.

The state of apoplexy differs but little essentially from either of these conditions, either of which may, indeed, pass into apoplexy. The history of the patient, if any can be obtained, will help to the formation of a correct opinion. The presence of paralysis, as indicated by the attitude of the patient or the loss of power of motion, as ascertained by pinching or tickling the limbs or feet, will assist in deciding whether the case is one of apoplexy; the decision will be further aided by the presence or absence of stertor or deep snoring.

If the case be one of drunkenness, there will usually be some smell of the liquor, either in the vomited matters or in the breath.

In concussion of the brain, the appearance is that of more extreme depression and nervous shock.

Causes.—1. *Predisposing.*—Habitual indulgence of the appetites, and gratification of the passions; luxurious ha-

bits; sedentary and laborious employments; insufficient diet; intemperate and luxurious living; the suppression of accustomed discharges; sudden changes, or extremes of temperature; the habit of sleeping after a full meal; lying too long in bed; diseases of the heart, liver, and kidneys; —all these give a predisposition to apoplexy.

2. The *exciting* causes are:—sudden mental emotion; excesses in diet; violent muscular efforts; the sun's rays (*coup de soleil*); too hot baths; extreme cold; sudden suppression of gout or rheumatism; in short, anything that may inordinately increase the heart's action, and augment the force of circulation in the brain of a person predisposed to the disease, or that may interrupt the flow of blood from the brain and produce congestion or over-fulness of its vessels.

Neither age, sex, temperament, nor habit of body can be said to be specially prone to or exempt from apoplexy.

Treatment.—From the description above given of the various forms which apoplexy may present, and from the fact that it may occur in very opposite conditions and habits of body, it is evident that one uniform rule cannot be given for its treatment,—and that the indiscriminate employment of blood-letting must be attended with very injurious consequences.

A non-professional person should never attempt blood-letting from the arm.

The patient should be placed in a reclining or sitting posture, the head and shoulders slightly raised. Cold water should be poured over the head. Mustard plasters should be applied to the soles of the feet and calves of the legs. If the patient be of a full habit, a dozen leeches may be applied behind the ears and on the temples. In the case of an adult of full habit, *one* drop of croton oil should be placed on the tongue and allowed to be swallowed, and repeated every three hours, until the bowels are freely purged. If this be not at hand, a clyster, composed of a pint of warm gruel, with two ounces of castor oil—or of warm soap and water, and an ounce of spirits of turpentine—should be speedily thrown up the bowels.

In the cases of aged people, or of persons of feeble habit, pale face, and spare frame, a small quantity of stimulant,

such as wine or brandy, or of sal-volatile in water, may be given every twenty minutes or half an hour, for a few times.

The feebleness or strength of the pulse, together with the general symptoms above mentioned, must determine the extent to which the purgation or stimulation is to be carried. A strong, full, and slow pulse permits leeching, purging, etc. A feeble, intermittent, or irregular pulse indicates that stimulants are required.

Equally important, or even more so, with knowing how to treat an attack of apoplexy, is to know how to ward it off. For this purpose, refer to the predisposing or exciting causes, and, as far as may be, avoid these. If threatening of apoplexy be felt, shun excessive indulgence of the appetites, passions, and emotions of all kinds. Live upon the plainest nutritious food. Use moderate exercise. Abstain from immoderate bodily or mental efforts. Endeavour to practise a regular action of the bowels and a uniform warmth of the surface of the body.

Treatment of the results of an Apoplectic attack.—After some hours have elapsed, if the means above indicated have been attended with success, consciousness will have gradually returned. The power of swallowing and of speaking will have been restored. The greatest care is required to avoid exciting the circulation.

In the full or plethoric patient, the action of purgatives may be slightly kept up for several days. A blister plaster may be applied on the nape of the neck. The diet must be light, consisting of weak broths, arrow-root, sago, etc.

In the patient of feeble and spare habit, purgatives are to be withheld, and small quantities of ammonia or ether given occasionally with a nutritious diet, including a moderate allowance of stimulants.

In either case there is a fear of inflammatory reaction being set up in the brain after the attack. This will probably commence in from eight-and-forty hours to four or five days. It will be indicated by increased heat of the head and surface of the body, headache, disturbed sleep, starting of the muscles of the face or limbs, increased frequency of pulse, sickness, thirst, etc. It is to be combated by the application to the head of cloths wetted with cold water, and the administration of calomel in doses of two

or three grains every six or eight hours, for twenty-four or forty-eight hours, withholding it as soon as it begins to purge or to cause tenderness of the gums, the precursor of salivation, which is to be avoided if possible.

For other remote consequences of apoplexy, see *Paralysis.*

ASTHMA.

Symptoms.—Difficulty of breathing, occurring in paroxysms, most frequently in the evening or about midnight, attended with a wheezing noise, great anxiety, and spasmodic impediment to the free admission of air into the lungs.

The countenance, at first pale, becomes flushed; the eyes prominent; the pulse weak, irregular, and frequent. There is often a feeling of impending suffocation.

The attack may pass off entirely after some hours, or the difficulty of breathing may continue in a less degree for several days, attended with a distressing dry cough.

The paroxysm is prone to return, at uncertain intervals. Each paroxysm generally subsides with cough and expectoration of tough mucus; the cough becoming looser as the paroxysm subsides.

Distinctive symptoms.—Spasmodic affections of the larynx, acute bronchitis, angina pectoris, and dropsy of the chest, may give rise to symptoms which might be mistaken for those of asthma, more especially in those attacks which have a spasmodic character.

Spasmodic affections of the larynx are attended with a peculiarly harsh noise, very different from the wheezing of asthma. The dread of suffocation is also more urgent than in asthma.

In acute bronchitis there is inflammatory fever, with fuller pulse; expectoration from the commencement of the attack; and the difficulty of breathing is less urgent and more constant.

In angina pectoris the character of the pain, and its seat in the region of the heart, with the general circumstances of the attack, distinguish it from asthma.

Dropsy of the chest may generally be distinguished by its being the consequence of long-standing disease, and by its being accompanied by dropsy of other parts.

Causes.—The *predisposing* causes are, malformation of the chest; long-continued disease of the heart or lungs; gout, dyspepsia, or whatever lowers the nervous energies.

The *exciting* are, violent mental emotions; sudden exposure to cold; over-exertion of the organ of voice; the inhalation of irritating or dusty particles, as in various arts.

Treatment.—The indications of treatment are,—1, to shorten or relieve the fit; 2, to prevent its return.

1. *During the paroxysm.*—Apply warm and stimulating substances to the surface of the chest; *e. g.* mustard plasters, or turpentine stupes, *i. e.* flannels wrung out of boiling water, and then sprinkled over with spirits of turpentine, and applied hot to the surface of the chest, being renewed as they get cool, until the skin is thoroughly reddened. At the same time the feet should be placed in hot water with mustard.

An emetic of ipecacuanha should be given; *e. g.* from 20 to 30 grains of the powder in warm water, vomiting being promoted by draughts of warm water. When its action has subsided, the following mixture should be taken at regular intervals of three or four hours:—

Paregoric	4 drs.
Sulphuric Ether	2 drs.
Spirits of Camphor	½ dr.
Tincture of Asafœtida	2 drs.
Water	6 oz.

Two tablespoonfuls for a dose.

Or the pills (see Prescription No. 50), one to be taken every three hours. In cases where the catarrhal symptoms are prominent, and where, with severe spasm, there is considerable expectoration of phlegm, see Prescription No. 15 or 17.

The age, strength, etc. of the patient must be particularly borne in mind in the selection of remedies for asthma. In the aged or feeble, ammonia, ether, etc., should be administered. Although in the younger and fuller-habited patients stimulants and antispasmodics may be given, they should be used more sparingly.

Much benefit is often derived, during the paroxysm, from inhaling the vapours of camphor, ether, balsam of tolu, with the steam of water.

The smoking of Stramonium (thorn-apple), either alone or with tobacco, or of tobacco itself, often affords great relief. In slight attacks this will often cut them short.

2. *Treatment during the interval.*—The indications, after the paroxysm has subsided, are to remove or control those morbid states which have given a predisposition, and to avoid all exciting causes.

The condition of the digestive organs demands close attention, to obviate costiveness, flatulency, etc.

The action of sudden cold upon the respiratory surfaces should be guarded against by the use of respirators.

Expectorant medicines (see *Table of Medicines*) should be taken to relieve the mucous membrane of the air-passages. For the same purpose some irritating liniment, or a blistering plaster, should be laid on the chest.

Tonic medicines are of great service in diminishing the liability to returns of the attack.

Strict attention to diet and regimen is required. Cold bathing, or sponging, and actively rubbing the surface of the body. Regular exercise, if possible, in a climate that shall suit the patient's susceptibility to atmospheric changes.

ATROPHY.

Wasting.

Symptoms.—Rapid or gradual reduction of the size of the whole body, or of parts thereof, with loss of colour, and other physical characteristics.

Causes.—Long-standing or progressive disease of vital organs, deficient or unwholesome food, faulty or defective action of the digestive organs.

Treatment.—Close observation often shows that serious disorders of some principal organ exists; it is therefore requisite to direct our treatment to these. It also often occurs, more particularly so in children, that wasting takes place without derangement of any other process than that of nutrition. In these cases a teaspoonful of cod-liver oil, two or three times a day, will often be followed by very decided and permanent benefit.

BALDNESS.

Causes.—Age; debility after fever and other illnesses; diseases of the skin; mercurial affection; late hours, and other excesses.

Treatment.—Stimulate the circulation in the scalp by washing with cold water, and friction with rough towel, or brushing with hard hair-brush. Apply either of the following stimulants:—

Tincture of Cantharides	½ oz.
Spirit of Rosemary	6 oz.

Mix for a lotion.

Or the following ointment:—

Red Precipitate	1 scr.
Spermaceti Ointment	2 oz.
Balsam of Peru	½ dr.

Tonic medicines and a generous diet will be advisable if the baldness be traceable to a feeble state of health.

BARBIERS.

Symptoms.—Trembling of the limbs; a pricking tingling pain and numbness of the lower extremities, followed by paralysis, both of sensation and movement of the extremities; inarticulation; exhaustion; sinking of the vital powers.

Causes.—This is a form of paralysis peculiar to Ceylon and India. Its remote causes are exposure to cold and damp; intoxication; suddenly suppressed perspiration; long fasting, and other depressing influences.

Treatment.—Change of climate, tonics, etc.

BERIBERI.

Symptoms.—Oppressed breathing, paralytic weakness, numbness and stiffness of the lower extremities, general dropsy. The disease often comes on suddenly. Its progress is slow and protracted.

Causes.—This disease is peculiar to India. It prevails most in Ceylon, the Malabar coast, and Madras.

The more immediate causes are, impure and moist air; insufficient food; prolonged excessive exertions, in malarious atmosphere.

Treatment.—Aperients, diuretics, tonics, and stimulants, combined with full and nutritious diet.

BILIARY DERANGEMENTS.

Bilious Disorders; Bilious Attacks; Sick Headache; Bowel Complaint; Bilious Diarrhœa; Functional Derangements of the Liver. (See also *Jaundice* and *Diarrhœa.*)

Symptoms.—1. *Those of diminished secretion of bile.*—Irregular or costive state of the bowels, the evacuations being insufficiently coloured with bile; flatulency; and various dyspeptic symptoms; furred tongue; nausea; pain under right shoulder-blade; headache, etc.; dark specks floating before the eyes; sallow or muddy complexion; lowness of spirits; piles.

2. *Of excessive secretion.*—Copious fluid evacuations, highly coloured with bile, often preceded by griping and by nausea, sometimes attended with vomiting; pulse accelerated.

Causes.—Residence in hot climates; exposure to extremes or vicissitudes of weather; the use of full rich diet; spirituous and fermented liquors in excess; misuse of mercurial medicines; neglect of the intestinal evacuations; neglect of the cutaneous functions; indolence and sedentary occupations; mental emotions; depressing passions; disease of other organs, as long-continued dyspepsia, diarrhœa, or dysentery.

Treatment.—In the first of the two forms above named, a moderate dose of a mercurial medicine, *e.g.* five grains of blue pill, followed by a warm aperient (see Prescription No. 28) will probably suffice to relieve the present symptoms. The treatment subsequently will consist in such diet, regimen, etc., as shall prevent the operation of the causes.

Extract or decoction of Taraxacum (Dandelion) is a valuable remedy for disorders of the liver.

Infants and young children are liable to indisposition from diminished secretion of bile. The stomach becomes

disordered, sickness occurs, the bowels are sluggish or irregular, and the evacuations pale or white. The child is fretful or weak. Sometimes profuse action of the bowels attends this condition of the liver.

Two or three grains of grey powder (mercury with chalk), followed, after a few hours, by rhubarb or castor oil, will generally suffice to remedy this disorder (or see Prescription No. 37).

It may, however, be requisite to repeat the grey powder every second or third night for a few turns. It is not then advisable to continue the purgative after each dose.

The diet at the same time should be nutritious, but plain, *e. g.* beef-tea, with light farinaceous puddings, milk, etc.

For the treatment of the second sort of biliary disorder, see *Diarrhœa*.

It may be well here to warn our readers against the common error of attributing all disorder of the bowels, and many other general ailments, to derangement of the liver; as well as against the consequent too frequent use of mercurial purgatives, which often lays the foundation of serious disease.

BLADDER, INFLAMMATION OF.

Symptoms.—1. *Acute.*—Severe pain, often of a burning character, with tenderness at the lower part of the stomach and body, in the loins and down the thighs; frequent occasion to void urine, which is passed with difficulty and great pain, in small quantities; confined bowels; restlessness; hot skin; rapid pulse; fever. The urine high-coloured, and thick with mucus.

2. *Chronic.*—The above symptoms continuing in slighter degrees, and with less severity. After the affection has lasted a few weeks the urine becomes thicker, until it is sufficiently viscid to adhere to the sides of the utensil; it then exhales a strongly ammoniacal odour.

Distinguished from spasmodic attack of gravel by the presence of fever, and the more sudden character of the seizure in paroxysms of gravel.

Causes.—Injuries from bruises; violent exertion; exposure to cold; prolonged retention of urine; diseases of

the urinary passage; gout; suppressed discharges and eruptions.

Treatment.—1. *Of acute inflammation.*—Leeching and warm fomentations to the lower part of the abdomen; hot hip-baths; calomel and opium (see Prescription No. 46); alkaline saline aperients (see Prescriptions Nos. 2, 5, or 16); warm clysters; warm unirritating beverages. Diet light.

2. *For chronic inflammation of the bladder.*—The mixture (Prescription No. 21) twice or three times a day. Dover's powder at bedtime to allay pain. Tonic medicines (see Prescriptions Nos. 10, 12). If the urine become thick, ropy, and has an ammoniacal odour, the decoctions of Buchu, or Uva-ursi, are serviceable (see *List of Medicines*). Change of air, sea-bathing, etc., with a nutritious unstimulating diet.

BLEBS.

Blains.

Symptoms.—An eruption of vesicles or bladders, on the skin, containing either a watery or a matter-like fluid. Being very thin, these vesicles break, leaving numerous tender raw surfaces, which become covered with yellowish or brownish scabs, or form ulcers.

Causes.—Disorders of the digestive organs or general constitutional debility.

Treatment.—*Locally.*—Rags dipped in cold water; sprinkle the surface with starch powder or magnesia; or cover with spermaceti or zinc ointment. The vesicles should first be punctured, and the fluid let out; the skin of the vesicle gently pressed down on the surface beneath. This will prevent excoriation from the discharge of the acrid fluid.

Treat the constitutional disorder with its appropriate means; thus, where disorder of the digestive organs appears to be the cause, alkaline medicines should be taken, *e. g.* rhubarb and magnesia or rhubarb and carbonate of soda or potash. In cases of constitutional debility the mineral acids or steel in various forms will be found serviceable.

BLEEDING FROM THE NOSE.

Treatment.—Apply cold water to the face and head; hold the arms upright over the head; if the bleeding be very profuse, and not checked by the application of cold, a brisk cathartic dose, *e. g.* Prescription No. 7, will generally check the flow of blood.

If it occur in a person of debilitated or feeble frame, and is not checked by cold applications, give from ten to twenty drops of muriated tincture of steel, in a wineglass of water, every hour, for three or four doses, unless it shall have checked the bleeding sooner. In patients of this class, a glass of port-wine will often stop the flow of blood.

Tonics (*e. g.* Prescriptions Nos. 4, 12) should be taken afterwards by the latter class of patients; purgatives and low diet, by the former.

BLEEDING FROM THE URINARY ORGANS.

Symptoms.—The urine containing blood, either liquid and diffused in the fluid, or thick and semifluid, or floating therein in the form of small clots, varying in colour from light brown to black. Shivering; pain in the loins or region of the bladder, lassitude, etc. If the blood be equally diffused in the urine, and contain small worm-like shreds, its source is probably the kidneys. If the blood come away towards the end of the urinary discharge, the first portion having come away clear, the bladder may be regarded as the source of the hæmorrhage. If the blood pass drop by drop without the urine, it comes from the urethra, the passage in front of the bladder.

Causes.—External injuries, as blows on the loins; falls; prolonged violent horse exercise; gravel in the kidneys; inflammation or congestion of the kidneys, as in ague, typhus and other fevers; congestion produced by violent poisons, as cantharides; debility of the bladder.

Treatment.—1. If the bleeding proceed from inflammation or congestion of the kidneys, resulting either from disease or violence, leeches should be applied to the loins; hot baths; sedatives (see Prescription No. 16); and purgatives (Prescription No. 2). If the bleeding be believed

to proceed from gravel in the kidneys, the same treatment, with the addition of alkalies (Prescription No. 5), will be serviceable. If from debility, mineral acids or tincture of steel may be given (see *List of Medicines*).

BLINDNESS.

Amaurosis; Gutta Serena; Suffusion; Drop Serene of Milton.

Symptoms.—In ascertaining these, it is necessary that each eye be examined separately, and that whilst one is being examined the other should be carefully excluded from the light.

The pupil is dilated, giving a staring look; the eyeball either oscillates or has unusual fixity and prominence. The action of the pupil, when tried by a light brought to bear upon it, is sluggish or unequal, so it will have an irregular form. The irregularity in the shape of the pupil is most frequently seen towards the inner and upper side of the eye.

Impairment of vision.—The impairment of vision commences with black specks before the sight, flashes of light, pain in the forehead and eyebrows. The failure of sight may, for some time, be partial, so that only portions of objects are seen. It may, at first, only be noticed at certain times of the day, or in the evening. These varieties are known as night-blindness or day-blindness.

As the disease progresses the impairment of vision becomes constant, and total blindness ensues.

The *distinguishing* symptoms are those that separate amaurosis from cataract, and other diseases of the fluids of the eye.

In cataract the dimness of vision is slower in its course, and has more the character of a mist or veil, than has that of amaurosis; at the same time, that in cataract an opacity is more or less plainly perceptible, filling the space of the pupil. (See *Cataract*.)

In amaurosis depending upon insensibility of the retina, the patient sees best at noonday; the reverse takes place in cataract, which consists of opaqueness of the structures placed before the retina.

Causes.—Disease, or disorder of the brain, optic nerve,

or retina. These may be permanent, depending upon change in the structure of the parts, or it may be connected with a merely temporary morbid condition, *e. g.* congestion, or poisonous substances circulating in the blood.

Blows, or other injuries of the globe of the eye, protracted over-use of the organ with a strong light upon minute objects, or during the hours that should be given to sleep, are among the *exciting* causes.

Treatment.—Attention to those conditions which may have given rise to it. If believed to be of a temporary character active purgatives must be given, combined with mustard cataplasms to the nape of the neck, hot mustard baths to the feet and legs, etc. Where the affection comes on suddenly, if medical advice cannot be speedily obtained these means should be employed without loss of time, pending the arrival of the medical attendant.

BLOOD, VOMITING AND PURGING OF.

Black Malady.

Symptoms.—*Vomiting of.*—Sickness, and vomiting of dark-coloured or black blood, sometimes pure and sometimes mixed with a watery or ropy fluid, or other contents of the stomach. The vomiting of blood is usually preceded by nausea, and a feeling of oppression or tightness, or heat, at the pit of the stomach. Sometimes it is attended by faintness. There is no cough, and the blood differs from the florid frothy blood of expectoration; the tongue furred; the pulse quickened.

Purging of.—Most frequently when blood is vomited it is also voided by the bowels in the form of dark, thick, or pitchy fluid. The discharge of blood is frequently preceded by severe griping pain in the intestines at a variable time before.

Distinctive symptoms.—Blood is frequently passed at stool of a florid red colour, proceeding from piles; this is to be distinguished from that which is poured out in the course of the intestines higher up, and which is of a black colour. The existence of piles is to be known by their own symptoms. (See *Piles.*)

Sometimes, when bile is thick, and of a dark colour, it

discolours the motions, and might be mistaken for altered blood, but the difference will be detected by close examination.

Causes.—Obstruction of the circulation through the liver or other organs in the abdomen; an inflammatory condition of the stomach; suppression of natural discharges especially in females; blows or other injuries of the abdomen; intemperance; mental emotions; fevers; scurvy.

Treatment.—When the bleeding does not originate in a blow, or other injury, purgatives should be freely administered, in order to relieve the fulness of the organs upon which the hæmorrhage may depend.

Five grains of calomel should be given, and followed every two or three hours by purgative draughts (see Prescription No. 7 or 26). At the same time clysters of senna mixture will increase the action of the bowels, and remove the blood that may have been effused.

If the bleeding continue, it will be in a slighter degree, and may then be treated with astringents, as dilute sulphuric acid with Epsom salts, or acetate of lead (see Prescription No. 4 or 48).

The diet should be simple and nutritious, and taken cold. Cold fluids will assist to check the hæmorrhage.

If the bleeding continue, astringents (see *List of Medicines* or Prescriptions Nos. 12 or 23) may be used.

If the loss of blood have caused debility, wine may be required. Strict rest, and quiet both of body and mind, should be observed.

The after-treatment should be directed to the prevention or removal of those conditions which cause the discharge.

The proper remedies for the suppression of periodical discharges must be employed. (See *Menstruation, suppressed.*)

If there be reason to believe the discharge to have been caused by disorder or congestion of the liver, a mild mercurial and aperient should be taken frequently.

BLOOD, EXPECTORATION OF.

Spitting of Blood; Coughing of Blood: Hæmoptysis; Pulmonary Hæmorrhage.

Symptoms.—With, or it may be without cough, blood is expectorated in greater or less quantity. Sometimes the expectoration of blood is preceded merely by a sense of tickling in the throat. The blood may be in such large quantity as to constitute the whole of the expectoration, or it may merely tinge or streak the phlegm that is coughed up. If in a considerable quantity a sense of suffocation may be experienced, or vomiting may be excited. The appearance of blood in this manner excites alarm, and produces acceleration of the pulse. The colour of the blood is generally florid, and, from admixture with air, it may be frothy.

These symptoms may recur. The intervals are uncertain. Sometimes the first attack is so profuse as to prove fatal.

Causes.—Consumptive disease in the lungs; inflammation of the lungs; deformities of the chest; disease of the heart; certain trades; external injury to the bones of the chest; over-exertion in lifting weights, etc.; tight lacing; suppression of accustomed discharges; violent mental emotions; sudden surprise; severe fits of coughing or sneezing.

Distinctive symptoms.—It may be difficult to say with certainty whether blood have come from the lungs, stomach, throat, or the nose. In the latter case the fluid is ejected from the nostrils as well as from the throat; it has not a frothy character. If ejected from the stomach, it is usually dark-coloured, not frothy, and is attended by sickness and vomiting.

Treatment.—The strictest rest, silence, and freedom from mental agitation are of the first importance. The patient should be placed in a half-sitting posture. Cool air must be freely admitted; all superfluous bed-hangings, or overcrowding of the apartment, must be avoided. The occurrence of spitting of blood is one of the earliest signs of the existence of tubercles in the lungs (consumption), and is, to a certain extent, a natural relief to congestion in those organs. It is not necessary, therefore, suddenly to arrest

it unless the hæmorrhage be very profuse. In the first or earlier attacks of hæmorrhage from the lungs in apparently healthy persons, leeches may be applied on the front of the chest below the collar-bones,—from six to twenty-four, according to the habit of the patient. After their removal, cloths dipped in cold water, or spirit and water, should be applied to the chest. Every fluid that is taken should be swallowed quite cold. Small pieces of ice may be swallowed or allowed to melt in the mouth, at short intervals.

Give acetate of lead (Prescription No. 48) every three, four, or six hours, according to the urgency of the symptoms.

A useful beverage for these cases may be made from vinegar, sugar, gum, and rose-water.

Saline aperients (see Prescriptions Nos. 1 and 4) and diuretics should be used in the after-treatment, with a view to the prevention of a return of the hæmorrhage.

The removal of what blood may be left in the air-tubes is to be effected by tonics, such as sulphate of zinc or iron; and by counter-irritation, such as stimulating liniments (see Prescriptions 60, 61), or repeated mustard plasters; or tincture of iodine should be painted on the upper part of the chest.

It will be important to avoid stimulants while the bleeding continues, and for some time afterwards. If, however, there be faintness or great weakness induced, wine may be given to meet this emergency.

When the bleeding comes on in the latter stages of a case of consumption, there need be no hesitation in arresting it by the administration of astringents, ice, etc., at the same time that with due regard to the strength of the pulse the constitutional powers are kept up by careful use of stimulants, such as port-wine or brandy.

BOILS.

Symptoms.—Circumscribed inflammations of the true skin, forming small abscesses. When these break, a *core*, or portion of dead tissue, is discharged, after an uncertain interval, depending upon the size of the boil, and the constitutional strength of the patient.

Boils are prone to occur several at a time, or in succession.

Causes.—These are not very obvious, as boils occur in all kinds of habits. They more frequently, however, attend a debilitated state of the system.

Treatment.—Warm fomentation; poultices; tonics; alterative aperients; full, nutritious diet.

BONE, INFLAMMATION OF.

1. *Acute.*—**Symptoms.**—Severe and deep-seated pain with swelling of a limb, most commonly of the thigh or leg of children. There is usually great constitutional disturbance, shown by active fever, shivering, etc. After a few days the skin of the limb at some part begins to have an inflamed appearance, and in a day or two more it will be felt soft and baggy, and matter forming will point somewhere on the surface.

Causes.—Cold; bruises; sprains of the joints, and constitutional maladies.

Treatment.—Warm-water dressing, the limb being elevated in a position on a line with or above the line of the body; active purging, and saline fever medicines. When matter points at the surface, an opening for its exit should be made at the most depending part.

2. *Chronic.*—After the acute symptoms have subsided a slow or chronic state of inflammation is often left behind, accompanied with continued discharge of matter, indicating abscess of the bone, or the death of portions of it—*necrosis* or *caries*. Sometimes the entire shaft of a bone dies, and is only to be separated by a difficult surgical operation. Loose portions of dead bone presenting at the surface may be removed by a pair of forceps. An impaired state of health, or constitutional disorder, is occasionally the cause of inflammation of bone, chronic from its commencement. One or more bones become gradually enlarged and tender.

Treatment.—Iodide of potassium, with tincture of bark; tincture of iodine applied locally, if the skin be not inflamed or broken, the limb being rested as much as possible, and support afforded by bandaging. The state of the health should be improved by change of air, with tonics and a good diet. One of the best tonics for these cases is iodide of iron.

Inflammation of bone is to be distinguished from inflam-

mation of its covering. (See *Periosteum, Inflammation of.*)

BOWELS, CONSTIPATION OF.

Costiveness.

Symptoms.—The contents of the bowels are retained much longer, without injury to the health, by some persons than by the generality of people; they should, however, ordinarily be evacuated once in twenty-four hours. A prolonged retention of their contents, their slow, imperfect, or difficult evacuation, constitutes costiveness. The symptoms (or rather the consequences) of costiveness are flatulency, griping, furred tongue, headache, etc., and many disorders of the digestive organs.

Causes.—Peculiarity of constitution; indigestible food; stimulating beverages; too long indulgence in sleep in warm, soft beds; sedentary occupations; profuse perspiration; advanced age; pregnancy; want of secretions of the mucous membrane of the bowels; loss of power in the muscular fibres of the intestines; inflammation of the bowels; neglect of the calls of nature.

Treatment.—Aperients; clysters; diet; and regimen to avoid the causes. (See Prescriptions Nos. 1, 4, 7, 27, 28, 42, 43, 44, etc.)

BOWELS, FALLING OF.

Prolapsus.

This is an occurrence that is not unfrequent in infants and young children, as well as in adults and the aged.

Causes.—Diarrhœa; over-straining; weakness of the intestine.

Treatment.—Wash the bowel carefully with a soft sponge and warm soap and water, then oil it and gently press it back. This treatment will generally succeed in the cases of infants or children, but in adults the application of ice may be required, or even leeching to reduce the bulk.

Great care should be taken to keep the bowels gently relaxed, so as to avoid straining. With adults injections of oak bark should be thrown up daily, and steel or other tonics should be taken internally.

BOWELS, RELAXED. *See* DIARRHŒA; DYSENTERY.

BOWELS, INFLAMMATION OF,

and Inflammation of the Peritoneum.

Symptoms.—Pain; extreme tenderness on pressure of the abdomen and in the course of the intestines; distension and sense of heat in the abdomen; the knees drawn up, and bent on the body; vomiting of bilious matter; skin harsh and dry; pulse quick and hard; urine scanty and high-coloured, thirst, loss of appetite; tongue white and clammy, or dark brown and furred in its centre, but red at its point and edges; general debility and prostration of strength. At first the bowels may be obstinately costive; they afterwards become relaxed, the evacuations being pale, yeasty, slimy, bloody, or offensive, dark and lumpy. There is frequent straining at stool without free action of the bowels.

Distinctive characters.—It may be distinguished from colic by the presence of febrile symptoms, the more rapid pulse, and the pain of the abdomen being increased by pressure, whereas pressure relieves the pain of colic.

Causes.—*Predisposing.*—Sudden changes of weather; damp and unhealthy situations; marshy districts in hot climates; debility; errors of diet as to quality and quantity; suppression of perspiration by exposure to cold or damp; intemperance; inattention to the condition of the bowels; the injudicious use of strong purgative medicines. Many poisons act fatally by producing inflammation of the bowels, as do also extensive burns and scalds.

Treatment.—From eight to twenty leeches should be applied over the painful part, according to the age of the patient and the severity of the attack. The bleeding may be encouraged by warm fomentations, or large warm bread-and-water, or bran-poultice.

Opium (see *List of Medicines*) to be given every two, four, or six hours. If the attack be not very severe, or if the patient be young or delicate, Dover's powder and grey powder will be preferable. If the symptoms do not yield to this treatment, a hot bath should be taken, turpentine fomentations employed, or a blister-plaster be applied. The costiveness that occurs in the outset of the

disease is owing to a spasm of the muscular fibres of the intestine caused by the inflammation. This will be subdued by the doses of opium. When the spasm is thus overcome, the bowels will resume their ordinary action. Calomel in small doses with opium may then be given, if pain continues. Sickness may be relieved by lime water (see *List of Medicines*). The tenderness and pain which remain after the severity and danger have subsided, may be removed by mercurial ointment externally applied, and the internal use of small doses of opium.

In the case of children under ten years of age, small doses of grey powder, and Dover's powders, with warm bath, hot fomentations, mustard plasters. Leeches must be sparingly applied to children, and great care is to be taken that they do not bleed too much.

N.B.—Dover's powder, or other opiates, must be very cautiously given to young children. They should not be given at all to infants, by non-professional persons.

When the symptoms have existed for more than two or three weeks, and do not then subside, the disease passes into a *chronic* state. The same remedies are applicable, but must be given in smaller doses and at longer intervals, and combined with mild tonics, as infusions of gentian or calumbo; blisters being frequently repeated.

The diet in either the acute or chronic form should be of the most unirritating character, and small in bulk, care being taken to avoid over-distension of the stomach and intestines. In the chronic state, a more nourishing diet than in the acute is required.

Chronic inflammation of the bowels is sometimes attended with ulceration, which generally proves fatal by perforating the intestines and permitting the escape of their contents into the cavity of the abdomen. Ulceration is scarcely distinguishable from chronic inflammation. The same treatment will be advisable.

BRAIN, CONCUSSION OF.

Symptoms.—Unconsciousness, either transient and momentary, or persistent, with loss of power of motion; impairment of the breathing; the pupils contracted or dilated,

but insensible to light; the pulse small and feeble; face pale; vomiting.

In children convulsions usually occur.

The duration of the symptoms varies with the intensity or severity of the cause.

Causes.—Blows, or falls upon the head. The same effects have been known to follow a fall upon the buttocks, or lower end of the spinal column; the brain being shaken by *contre-coup* or recoil.

Treatment.—In slight cases it will suffice to apply warmth to the surface, and to administer some moderate stimulus, as warm wine and water, or a few drops of ether, or sal-volatile in water, at intervals, until the paleness of the face, feebleness of pulse, and coldness of surface, passes off. Reaction will then be set up, and may be attended with re-established health, or may be followed by inflammation of the brain. For this last reason it is most desirable to be careful not to give stimulants too freely, during the state of depression. As the case is, however, at first one of extreme depression, all measures of depletion are to be carefully abstained from. It is possible to do more ultimate injury to a serious case by such measures, than by the administration of a little more stimulant than absolutely required. As recovery takes place, aperients may be given to relieve any tendency to congestion of the brain. The diet must be very light and simple.

If the injury should lead to inflammation of the brain, active treatment will be required (see *Brain, Inflammation of*).

BRAIN, CONGESTION OF.

Symptoms.—Headache: giddiness; noises in the ears; drowsiness; brilliancy or wateriness of the eyes; redness of the countenance; beating of the vessels about the head and neck; loss of recollection; cramps, twitching of the limbs. The pulse full. These may pass on to loss of sense and motion, often of an apoplectic character; or, it may become inflammation of the brain.

Causes.—The same as in apoplexy and inflammation of the brain. Extreme heat, intemperance, etc.

Treatment.—Apply leeches to the temples or behind

the ears. From one or two (in the cases of children) up to twenty or thirty for grown-up persons, according to the severity of the symptoms. Cold water should be poured on the head. The position of the patient should be sitting or semi-erect.

Active purgatives should be quickly administered. Calomel (five or ten grains for an adult) followed by senna, castor oil, etc. Purgative and stimulant clysters should at the same time be used. (See Prescription No. 73.)

BRAIN, INFLAMMATION OF.

Acute Water on the Brain; Acute Hydrocephalus.

Symptoms.—Intense pain in the head, heat of scalp; intolerance of light and sound; hot skin; furred tongue; thirst; sickness; vomiting; watchfulness; and delirium; flushed countenance; bloodshot or dull eyes; bowels costive; urine scanty; quick sharp pulse; spasmodic twitchings of the limbs, or convulsions, passing into deep comatose sleep, with loss of muscular power.

In Children.—The child has probably been fretful for a few days before. It may have complained of sudden pain in the head, or, if not able to speak, may frequently put its hands to its head; the eyebrows are knit; vomiting soon forms one of the most obstinate symptoms. The bowels are disordered. The child is drowsy, but sleeps ill, grinds its teeth in sleep, sleeps with its eyes open, starts, or wakes up in alarm. The soft part on the top of the head will be felt to be distended.

These premonitory signs may continue for four or five days, when the indications of fully-developed inflammation, as described above, will be observed. There is, moreover, in children suffering under the affection of the brain, a sharp, short, peculiar, plaintive cry. The symptoms will usually be observed to be worse at night. The duration of the disease may be several weeks. If, as the disease progresses, the inflammation extends from the brain down the spinal cord, the body of the child becomes stiffly bowed backwards. It usually terminates by convulsions, perhaps of one side only of the body, or of one limb only, and coma caused by effusion of serum on the surface of the brain; hence its name, acute "*Water on the Brain.*"

It is to be distinguished from *Irritation of the Brain* (which see).

Causes.—Difficult teething; scrofulous constitution; over-exertion of the mind; passions; excessive sensual indulgence; intemperance; suppression of habitual discharges; blows; falls; other injuries of the head; the action of the sun's rays; disease of the bones of the skull, or of the internal ear.

Treatment.—As soon as it is clearly ascertained that the case is one of inflammation of the brain, active measures must be adopted. For the case of an adult, from one to two dozen leeches must be applied behind the ears, or upon the temples. For a child it will be safer not to apply leeches. If the scalp be hot, cold water, or pounded ice in a bladder, must be laid upon the head, which must be somewhat raised. When the temperature of the surface falls, the cold applications must be discontinued, lest they cause too great a degree of depression.

To an adult four grains of calomel may be given, and followed in two or three hours by a senna purge. After the action of the bowels, calomel in doses of two grains should be given every six hours. The rapidity of the pulse and heat of the skin may be met by a saline mixture; *e. g.* see Prescription No. 2.

The calomel must be stopped as soon as the gums become inflamed, or the breath acquires the peculiar odour of salivation.

If these means do not suffice to check the progress of the malady, a blister plaster may be applied on the back of the neck, and left for from eight to twelve hours in the case of an adult, and two or three hours in the case of a child. If coma or a state of insensibility should supervene, clysters of turpentine should be administered (see Prescription No. 73).

When this disease occurs in *infants* or *children* the same line of treatment must be adopted, but the doses very much reduced (see *Table of Medicines*). If the attack be connected with the process of teething, the gums must be freely lanced. (For directions, see *Teething*.)

In children calomel frequently produces profuse irritable

purging of green stools. These must not be allowed to continue more than two or three days. The calomel should then be changed for grey powder alone, or combined with James's powder in small doses.

The diet and regimen during the activity of this disease must be rigidly low: as the symptoms subside, it must be very cautiously and carefully augmented.

Inflammation of the brain cannot be suffered, even under the most favourable result, without the functions of the nervous system being in various ways impaired. The effects thus left behind are to be got rid of only by the most careful avoidance of all predisposing causes, by the use of tonic alteratives, by change of air and scene, etc.

N.B.—We have in inflammation of the brain one of the most dangerous maladies to which man is liable; one in which the shades of severity or intensity are endless; one, therefore, which requires varied adaptation of treatment. Consequently it is impossible to give to non-professional readers more than the above general outline of the disease and its treatment. (See also *Insanity*.)

BRAIN, CHRONIC INFLAMMATION OF.

Chronic Hydrocephalus; Water on the Brain; Dropsy of the Brain.

Symptoms.—This disease is often congenital, *i. e.* dates from birth. The infant has convulsions which may occur daily, or may be slight, amounting only to squinting or rolling about the eyes. The size and disproportion of the head soon attract notice. The forehead is prominent, the eyes sunken, owing to the distension and separation of the bones of the head, from the accumulation of fluid. The head droops or rolls on one side. While the size of the head continues to increase, the growth of the body is imperfect, its general nutrition impaired. The functions of the liver are torpid; the bowels are disordered. The child has a peculiar plaintive cry. Its temper is irritable. The intellect may either be dull or unusually active.

The malady usually terminates by convulsions if the patient does not fall a victim to other diseases, to which its feeble and unhealthy condition renders it especially liable.

Causes.—Scrofulous constitution; the consequences of acute inflammation.

Treatment.—The case is almost always hopeless. The only means that can be recommended are the strictest attention to diet and general health. The administration of iodide of iron, or iodide of potass, will be of service. Pressure and tapping have been successfully used in some rare cases, but these are not means available to non-professional persons.

BRAIN, IRRITATION OF.

Symptoms.—Morbidly increased sensitiveness; irritability; fretfulness; wakefulness; an absence of sleep often for days and nights together, beyond snatches of a few minutes; grinding the teeth; there is shrieking and crying very much like what is met with in inflammation of the brain; but the head is not hot, and there is an absence of fever; the child will throw himself backward, bowing his back by jerks; or the body will become rigid for a time; the thumb will be bent on the palm of the hand, and the toes and foot curved downwards; the space on the top of the head will be found depressed.

Causes.—Dentition; over-feeding; indigestible substances in the stomach and bowels.

Treatment.—The gums should be lanced. Aperients of rhubarb and soda, or magnesia (see Prescription No. 5 or 6); with mild mercurials, *e.g.* grey powder. Simple but nutritious diet, such as beef-tea, milk, arrowroot, tapioca, etc.

Where there is little room to doubt that the malady has been excited by over-feeding, or indigestible food, an emetic given at the onset will often greatly help to cut short the attack.

This affection may pass into inflammation of the brain.

BREAST, INFLAMMATION OF.

Milk Abscess.

Symptoms.—Sharp, shooting pain, and hardness of the breast, with redness of the skin as the inflammation extends and approaches the surface. Feverishness. When matter has formed and comes to the surface the pain is less acute,

but still severe and throbbing; shivering takes place, the skin becomes discoloured at one or more points, then gives way, and the matter is discharged often in great quantities.

Such are the symptoms in the commonest form of inflamed breast, occurring to women who are suckling or weaning. Inflammation of the breast does, however, sometimes occur in young girls, especially about the period of puberty. The pain is considerable, but it seldom proceeds to the formation of abscess. Even the breasts of newly-born infants are apt to become inflamed; but this inflammation rapidly subsides if let alone.

Causes.—Cold; bruises; weaning; irregularity or want of care in nursing, by which the breasts are permitted to become loaded and over-distended with milk.

Treatment.—In the outset rags wetted with cold water may be laid on the breast, which should be supported by a handkerchief passed under it. The fulness of the breast is relieved by suckling, or the breast-pump or drawing-glass. A large wide-mouthed bottle, or soda-water bottle, first filled with warm water, then emptied, and its mouth applied to the nipple and breast, will, as it cools, exert a suction power which will relieve the breast by drawing the milk. In addition to this, the rubbing the surface of the breast gently with camphor liniment three or four times a day will often disperse the hardness.

If the preceding means fail to check the inflammation, recourse should be had to warmth and moisture, by means of lint covered with oil-silk, or by poultices, and a full diet should be taken, including wine, etc.

For the milder cases of inflammation of the breast in infants and young girls, the mere application of warmth and moisture, with some mild aperients, will suffice.

BREAST, INDURATION OR HARDENING OF.

Irritable Breast.

Symptoms.—A portion of the substance of the breast becomes hard and tender to the touch; sometimes attended with redness of the skin over the tumour or lumps it forms. Often met with in young girls about the period of puberty.

Causes.—Weaning; sympathetic irritation of the breast from the derangement of the uterine functions; blows.

Treatment.—Warm fomentations; mild stimulating liniments; mercurial ointment. Internal medicines for the general health.

BRIGHT'S DISEASE. *See* KIDNEYS, DISEASE OF.

BRONCHITIS.

Inflammation of the Chest; Catarrhal Cough.

Symptoms.—Usually commences with the symptoms of a common cold, such as running at the nose and eyes, hoarseness, tickling in the throat, soreness or pain of the chest, oppression in breathing, and pains in the limbs and body. The cough is accompanied by expectoration of watery, transparent, and pale phlegm. At first the expectoration is scanty; it becomes more abundant, thick, and opaque, varying as the disease advances or continues long. There are more or less fever and constitutional disturbance, heat of skin, quickness of pulse, loss of appetite, furred tongue, costiveness of the bowels, scantiness of urine.

Causes.—Atmospheric changes; or irritating substances taken into the lungs in breathing.

Treatment.—Bronchitis presents different degrees of severity, and its treatment must be modified accordingly.

1. *Slight or catarrhal.*—The symptoms being little more than those of common cold, and the cough but trifling, will call for only simple diaphoretics (medicines to promote perspiration), followed by mild aperients if the bowels be costive. (See *Catarrh.*)

2. *Acute Bronchitis.*—The symptoms are severe from the first, and rapid in their course. Mustard poultices or turpentine stupes should be freely applied over different parts of the chest. An emetic of ipecacuanha should be given. The emetic may be repeated at the end of twenty-four hours if the symptoms have not decreased in severity. When the action of the emetic has subsided, the mixture should be given according to Prescription Nos. 2, or 17.

Purgatives are of great service in this form of the disease.

The patient should be kept in bed, and the temperature of his chamber be carefully moderated. The diet should be of the lightest character.

3. *Subacute.*—The symptoms are milder than in the acute form and slower in their progress, but more severe than in the catarrhal form. For the remedies applicable to this variety, see Prescriptions Nos. 3, 15, or 17. Mustard plasters to the chest. See page 28.

4. *Chronic.*—The symptoms are mild, but slow in their progress, often lasting several months. This form is known as the common "winter cough."

In this form, stimulant, expectorant (see Prescriptions Nos. 3, 15, 19, 50, or 51), and tonic medicines are required. Turpentine stupes and mustard plasters. Diet liberal; *e. g.* meat, wine, malt liquors, etc.

The use of a respirator, or residence in a mild climate during the winter months, is a valuable means of warding off attacks of the disease.

The symptoms of bronchitis in children are not so active or so rapid as in adults. They are at first those of common "cold," which, instead of subsiding, become more marked and severe. Feverishness increases, as do also the violence of the cough and frequency of breathing.

Sometimes, however, the course of the symptoms is very rapid in children, and in the course of a few hours the child will be in danger of suffocation from the quantity of phlegm, which the cough, however violent, does not remove as fast as it is accumulated.

The treatment here must be more active, and calls for a greater degree of care and judgment. An emetic of ipecacuanha, two to four grains every ten minutes until vomiting takes place. A blistering plaster should be applied for two hours, and then poultice of bread and water to the blistered surface. Small doses of ipecacuanha should be continued (see *List of Medicines*).

In the milder form of bronchitis in children, mustard plasters, turpentine stupes, or large bran poultices, may be applied over the chest. Warm bath morning and evening. Repeated small doses of ipecacuanha, nitre, and calomel, should be given every three or four hours (see *List of Medicines*).

BRONCHOCELE.

Goitre; Derbyshire Neck.

Symptoms.—Enlargement in the front of the neck, progressing very slowly, often for years.

Causes.—Constitutional tendency, depending upon local physical conditions, as in the Alps and other mountainous districts; or irregularity of menstruation in females.

Treatment.—Tincture of iodine ten drops, in a wine-glass of cold water, two or three times a day. The dose may be increased gradually.

Tincture of iodine to be painted on the neck, or iodide of potassium and iodine ointment to be applied night and morning.

The constitutional derangement must be attended to at the same time.

BROW AGUE. *See* NEURALGIA.

BRUISES. *See* ACCIDENTS.

BUNIONS.

Symptoms.—Chronic enlargement of the joint of the great toe, occasionally attended with pain, heat, and swelling of the skin.

Causes.—Pressure of shoes or boots causing inflammation of the small sac containing fluid, which exists on the surface of the ball of the toe. Displacement of the bones of the joint is often a cause of bunion.

Treatment.—If begun early during the inflammatory stage, two or three leeches; warm fomentations; poultices. Have boots made so as to remove pressure. Apply soft perforated plaster made of thick buck-leather or German tinder, spread with adhesive plaster.

BURNS AND SCALDS. *See* ACCIDENTS.

CANCER.

Symptoms.—A hard tumour; in its *first stage* attended with little or no pain; insensible to the touch; unequal or irregular on its surface. In its *second stage* it ulcerates and

becomes the open cancerous sore, discharging a thin acrid fluid, and attended from the first with severe pain, of an acute, cutting, or stabbing character. The ulceration spreads to the surrounding skin, and the adjoining glands are irritated: lastly, the blood becomes vitiated: the powers of life sink.

The most frequent external seat of cancer is the breasts of females; internally, the womb or the stomach. Other parts of the body or of the skin may be its seat. Cancer seldom occurs under thirty years of age.

Distinctive characters.—Other tumours, not of a malignant or fatal kind, may be mistaken for cancer. Thus it very often occurs that a portion of the female breast becomes hardened after nursing, or in young girls (see *Breast, Hardening of*). This tumour is not so hard or insensible to the touch as cancer in its first stage. It will remain in its form of tumour many months, but never proceeds to ulceration, and generally disappears if pregnancy occur. Simple hardening of any part or organ is usually preceded by inflammation, and disappears on amendment of the general health.

Causes.—Hereditary tendency; anxiety and distress of mind; depressing passions; bad and insufficient food; external injury, as blows, etc.

Treatment.—In its earliest stages much good may be done by medicines selected for the debilitated state of health. All means of cheering the spirits. External application of opiates and other sedatives will be serviceable. Avoid everything that may irritate or accelerate ulceration. Narcotics and sedatives to be taken also, to relieve pain. Poultices of hemlock (see *List of Medicines*); lotions of chlorine (see Prescription No. 56) or Condy's Fluid diluted.

The existence of internal cancer (of the womb, stomach, etc.) not being ordinarily determinable by non-professional persons, it will not be useful to speak of its treatment beyond recommending narcotics and sedatives for the alleviation of pain.

N.B. It is of the highest importance to have recourse early to medical opinion in cases of cancer or suspected cancer; and, moreover, to be especially cautious against

the employment of quack remedies, which often aggravate the disease, or afford a little temporary relief, often at the cost of shortening life. Far less risk is incurred by doing nothing at all.

CANKER.

Eating Tetter; Noli-me-tangere; Lupus.

Symptoms.—An eruption, most commonly seen on the face or forehead, consisting of raised inflamed spots, either singly or in clusters, smooth, red, and shining, from which the skin exfoliates or falls off. In this state they may remain for months, spreading over the entire face. In one form of the disease a brown scab forms, which, on being scratched off, allows the discharge of a thin acrid fluid, which is seen to proceed from ulceration of the skin. This ulceration often spreads and destroys the skin, eating away perhaps a great portion of the nose or lips, and when it heals leaving white scars.

Causes.— Scrofulous or other disorders of the constitution.

Treatment.—The internal administration of alterative doses of iodine, or mineral acids (see *List of Medicines*), or cod-liver oil. The external application of creasote or iodine, or of nitric acid diluted with eight parts of water. The ulcerating or eating form requires the application of nitrate of silver.

CARBUNCLE.

Symptoms.—Carbuncle is a very large painful boil. The swelling gives way after a few days, at several small points of ulceration; as these spread they form one large irregular opening, through which the core, or setfast, or slough, is discharged, as it gradually becomes cast off from below. It is usually situated on the back, arms, or thighs.

Cause.—Debility.

Treatment.—Folds of lint or soft rag dipped in warm water and covered with oiled silk, until the skin gives way—then dress the surface with basilicon ointment spread upon lint. If the discharge be offensive cloths dipped in weak solution of Condy's Fluid can b laid over all.

Bark and ammonia (see Prescriptions) must be freely given; with a free allowance of meat, wine, porter, etc. and opium to allay pain (see *List of Medicines*).

CARIES. *See* BONE, CHRONIC INFLAMMATION OF.

CATALEPSY.

Trance; Ecstasy.

Symptoms.—Sudden deprivation of sense, intelligence, and voluntary motion, the patient remaining in the same position, during the paroxysm, as at the moment of attack, or as placed in during its continuance; the pulse and respiration little affected, or so feeble as scarcely to be detectable. The eyes fixed, open or shut; pupils contracting on the application of a strong light. The evacuations are either suspended during the fit, or passed involuntarily. Restoration generally occurs suddenly; with headache, sense of fatigue, etc. No recollection of what has occurred in the fit. The suspended train of ideas resumed at the moment of recovery. Terminates in health; sometimes, however, in insanity. Preceded by mental excitement of a religious or other character, it constitutes *ecstasy*.

Causes.—1. *Exciting.*—Depressing passions; prolonged or violent mental impression; anxiety; unrequited affection; religious contemplation.

2. *Predisposing.*—Hysterical or melancholic temperament; female sex; age—attacks being rarely met with before puberty.

Treatment.—Sprinkling or dashing with cold water; stimulants, such as ether or sal-volatile; friction and counter-irritation to spine or extremities; stimulating clysters (see Prescription No. 73). After the fit, tonics should be taken for some time.

CATARACT.

Symptoms.—Vision obscured as by a mist or veil, when the disease is in its early stages; at last sight is quite lost. As the disease advances, a dead-white, bluish-white, or amber-coloured opaque body is seen behind the pupil.

Cause.—The transparent lens situated behind the pupil

of the eye becomes opaque, and intercepts the rays of light which should pass to the back of the eye. Thus it is that in twilight, or by a faint light, vision is somewhat improved, the rays being permitted to pass by the sides of the lens. The conditions that give rise to cataract are not very clearly made out. It sometimes follows on wounds or other injuries. Cataract is seldom met with until after forty years of age; except where it has existed from birth, *i. e.* "*congenital cataract.*"

Treatment.—No medical means are of any use. The advice should be had of a surgeon *well skilled in performing operations upon the eye.*

CATARRH.

Cold in the Head or Chest, etc.

Symptoms.—Feverishness, chilliness, pain and heaviness about the forehead, eyes, etc. Sneezing; running at the eyes; dryness and soreness, or sense of heat, in the lining of the nostrils and throat; tightness of the chest; cough; pains in the limbs. The heat and dryness of the nostrils and throat passing off, a profuse secretion takes place, causing "running at the nose" and copious thin expectoration with the cough. Catarrh, attended with diarrhœa.

Causes. — Transitions of atmospheric temperature; checked perspiration.

Treatment.—Promote free perspiration by hot water to the feet; warm bed; warm beverages, as white-wine whey, tea, gruel, etc., or Dover's powder: or James's powder (see *List of Medicines*), followed next morning by purgative draught No. 28.

CHAPPED HANDS.

Treatment.—Thoroughly dry the hands after washing. Protect from cold. Apply fresh cold cream, or 1 oz. honey with 1 dr. of borax; or the following lotion:—

Borax	½ dr.
Glycerine	½ oz.
Water	½ pint.

CHEST, INFLAMMATION OF.

See *Pleurisy* and *Bronchitis*, or *Lungs, Inflammation of.*

CHICKEN-POCK.

Varicella; Water-pock; Swine-pock; Hives.

Symptoms.—Eruption of small pimples on the back, chest, shoulders, neck, and face. These pimples on the second day become vesicles, *i. e.* each consists of a minute bladder, containing a faintly yellowish, clear fluid. On the third day, or it may be the fourth, the fluid has become opaque, and the vesicles are then considered mature or at their height. After this a thin crust or scab forms, and falls off by the fifth or sixth day, without leaving any mark. There is no fever in the greater number of cases. Sometimes the pimples are very numerous, longer in their course, attended with some feverishness; and when they have died away, leave a few scars behind.

Distinguished from smallpox by the rapidity of its course, the vesicles drying in three or four days, the globular form of its vesicles, and the absence of fever. The vesicles of smallpox have a depression on the middle of their surface, and they take eight days to reach their height, and several days more before they dry into scabs. It is difficult, however, in some cases to distinguish between severe chicken-pock and mild smallpox as modified by vaccination. The vesicles of smallpox, whether modified by vaccination or not, have generally a ring of inflammatory redness around their base; this is absent from the vesicles of chicken-pock, which have some resemblance to a globule of water dropped on the surface.

Cause.—The disease is sometimes epidemic. It is also infectious.

Treatment.—This disease is entirely free from danger. It requires no further treatment than a light diet, and sometimes a mild aperient.

CHILD-CROWING.

Crowing Inspiration; Laryngismus; Pseudo-Croup.

Symptoms.—A crowing noise with inspiration, attended often with a sudden paroxysm of difficulty of breathing, amounting sometimes to absolute suffocation. The attack often comes on with crying, ceases suddenly, and is liable to recur at uncertain intervals. The attack may prove suddenly fatal.

It is generally attended with more or less convulsive movements of the muscles of the extremities, the thumb being bent upon the palms of the hands, and the toes bent down.

Distinctive symptoms.—This disease is of a convulsive character, and not attended with cough and other catarrhal symptoms, as is croup. Croup is not excited by anger or mental irritation, as is the crowing inspiration. The latter also entirely and suddenly subsides until the next attack,—croup does not go off suddenly in this manner. The noise made in breathing of croup is a hoarse, rough, whistling, rather than crowing sound, and occurs both in inspiration and expiration; in child-crowing it occurs only during inspiration.

Causes.—In children of delicate constitution, teething predisposes to attacks of child-crowing, as do also insufficient or improper food, impure air, and all other debilitating agents. A fit may be excited by anger, or crying; or by disorder of the stomach or bowels.

Treatment.—If connected with teething, the gums should be freely lanced (see *Teething*). Cold water should be sprinkled or dashed in the face. If the feet and hands be much convulsed, the child should be placed in a hot bath. During the recurrence of the paroxysms, one or two drops of chloric ether may be given every four hours. At the same time the mixture (see Prescription No. 22) should be given, with rhubarb, according to the state of the bowels. In the intervals, tonics, with pure bracing air, out-door exercise, careful feeding, etc.

CHILBLAINS.

Cause.—Extreme cold, too quickly followed by warmth. Thus they are produced by holding the feet near the fire when cold. They are also more frequently met with when a thaw sets in after a hard frost.

Treatment.—If not broken, paint the part with tincture of iodine night and morning, or soak the feet in hot water with mustard mixed in it. If "broken," an open sore is formed, which is to be treated by bread poultice or water-dressing for a day or two, and then apply Turner's cerate, or oxide of zinc ointment, spread upon lint or linen.

CHILDBED FEVERS. *See* FEVERS, PUERPERAL.

CHLOROSIS.

Green Sickness in Females.

Symptoms.—Languor, debility, disinclination to bodily or mental exercise; loss of appetite, or craving for unwholesome articles of food; costiveness; the monthly functions irregular; tongue white and pasty, breath offensive; sleep disturbed; headache; pain in the side; shortness of breath, and palpitation of the heart on making any exertion. The pulse quick and small. The countenance at first pale, becoming of yellowish-green tint. If the disease continues, this complexion of the countenance extends to the whole body. The eyelids become puffy; the feet cold, and the ankles swollen. The spirits become sad and depressed. The general health gives way, and various hysterical symptoms appear.

Causes.—Impure air; unwholesome diet; sedentary occupations; over-work at an early age; inattention to the condition of the bowels; abuse of spirituous liquors in early life; indolence; indulgence in warm beds. Depressing passions; vicious habits; unrequited love; grief; etc.

Treatment.—The condition of the evacuations from the bowels should be attentively regarded. If the motions be costive and dark-coloured, active purgatives should be given. If the light colour of the stools indicate an absence of bile, the pills (Prescription No. 43) may be given.

After this point has been attended to, the general health and irregularity of menstruation will be improved by either of the tonics (see Prescriptions Nos. 4, 11, 31, 32). The operation of these medicines will be aided by the shower-bath, hip-bath, or cold sponging, followed by friction of the surface of the body by means of a rough towel.

A diet of meat, beer, wine, etc., with change of scene, and exercise in the open air, will greatly contribute to the restoration of health.

CHOLERA, ENGLISH—BILIOUS.

Bowel Complaint.

Symptoms.—Pain and griping in the bowels; copious and frequent purging of bilious motions. Vomiting of bile. Cramps of the legs and thighs. Headache, thirst, furred tongue. Urine scanty and high-coloured. The pulse, at first full and frequent, becomes smaller and weaker as the disease advances; the skin also becomes cold and clammy, and even bluish in extreme cases.

Causes.—Disorder of the liver; exposure to great heat of sun; changes of temperature; cold and moisture to the feet; cold drinks or ices taken when the body is heated; unripe and indigestible fruits; intemperance. Climate. (Bilious cholera prevails extensively in southern climates, in situations subject to emanations from putrid or decaying vegetable matters. It also occurs epidemically in colder countries during the autumn months, after rainy springs or summers.)

Treatment.—In a mild or slight attack, take weak broths, etc.; abstain from usual full diet. Rest, and allow the action of the bowels to carry off the disordered bile that is the cause of the attack.

If the symptoms do not subside, or if attack is attended with much pain, cramps, etc., warm fomentations should be applied to the surface of the abdomen, or a mustard plaster on the pit of the stomach, to allay sickness. Friction or hot bottles to the extremities. Opium, to relieve the pain and cramps, is best given in the form of a pill, as it is less likely to be rejected by the stomach than laudanum; a half-grain pill, to be repeated every two or three hours,

according to the severity of the symptoms, or according as they give way or not. (It is to be borne in mind that these doses of opium are prescribed for adults—not for children; see *Diarrhœa in Children*, and *Table of Medicines*.)

The purging may be checked at the same time that the spasms are allayed by the mixture (Prescription No. 20 or No. 23, with or without the addition of a few drops of laudanum).

CHOLERA, SPASMODIC, ASIATIC, OR MALIGNANT.

Symptoms.—1*st stage*.—Premonitory looseness of the bowels, lasting for several days, or a few hours, generally with little or no pain.

2*nd stage*.—Suddenly the patient has a sinking feeling, or faintness, sickness, and a profuse watery purge. This is rapidly followed by vomiting, and purging of thin motions resembling rice-water or thin gruel, often with a peculiarly offensive odour. Severe cramps attack the muscles of the abdomen, thighs, legs, hands, and arms. The tongue is cold; there is great thirst. The urine is suppressed. The surface of the body is cold, and bathed in clammy sweat, and acquires a bluish tint. The pulse small, rapid, and soon imperceptible. The voice has a peculiar whispering character.

Causes.—The immediate cause of cholera—the material poison, or *something*, whatever it may be, that gives rise to these formidable symptoms—has not yet been discovered. The means by which it is spread are, however, better understood than they were.

The latest observations resolve these into atmospheric influence, or the epidemic constitution of the atmosphere; and a material undergoing increase or development within the human body, propagated by contagion, under certain favourable conditions of warmth, foul air, dampness, want of cleanliness, etc.

The late Dr. Snow's theory, which is supported by a vast array of facts, accounts for the spread of cholera through the agency of water which has by various means become contaminated. The poison having been in this

way swallowed, acts directly upon the internal surface of the intestines, becomes there multiplied and reproduced, passes out by the matters vomited or purged, further to contaminate drinking water or to be conveyed to others through want of care and cleanliness, and so propagate the disease. This theory explains most of the facts connected with the spread of cholera which are left unexplained by other theories.

Cholera, however, is known to spread from town to town in a disproportionate rate as regards sex, and under certain atmospheric conditions which Dr. Snow's theory has not at present explained.

Among the predisposing causes of Asiatic cholera are to be enumerated :—Impure air, indiscretion in diet, bad food, intemperance, want of cleanliness, insufficient clothing, purgative medicines, excessive fatigue, fear, previous disease, pregnancy.

Treatment.—1*st stage*.—For the diarrhœa which generally precedes cholera, give a dose of castor oil, and follow up with half-grain of opium every four hours, or with the chalk or creasote mixture (see Prescriptions Nos. 20 and 23) or sulphuric acid (see *List of Medicines*, p. 272).

Perfect stillness *in a reclining posture* must be observed, and heat applied to the surface of the body and limbs by means of hot bottles, heated bricks, bags of hot salt or sand, etc.

Mustard plaster may be applied to the pit of the stomach, or the abdomen may be covered with hot flannels sprinkled with spirits of turpentine.

Cold water may be freely given to drink, even if repeatedly vomited.

If the above-named medicines do not give relief, or the case passes into collapse, give—

Carbonate of ammonia..... 5 grs. in a wineglass of water.

or—

Spirits of sal-volatile ..... 30 dps. in a wineglass of water.

Every two or three hours.

Hot water should be given to drink, with small doses of brandy.

The severe pain of the cramps may be relieved by doses of twenty or thirty drops of ether, or from three to five drops of chloric ether every half-hour, or by hot bottles to the legs and feet, or by wrapping the limbs in flannels wrung out of hot water.

The *consecutive fever* which often follows the subsidence of the cholera symptoms is of the typhoid character, and should be treated according to the directions for typhoid fever (see *Typhus*). It must be borne in mind, however, that the object here is to restore the urinary secretion; diuretics must therefore not be forgotten

CHOREA.

St. Vitus's Dance.

Symptoms.—After some time of indefinite ill-health, such as derangements of the stomach and bowels, diminished activity, fretfulness, etc., irregular movements of the voluntary muscles are observed. Twitchings, etc., of the muscles of the face are probably first noticed. The ordinary movements of the arms and legs become interfered with by involuntary jerking of the muscles, so that the patient has a jumping, starting, or palsied walk. Speech and articulation become difficult, the mouth distorted, the eyes roll about, and as the disease becomes confirmed the movements of the limbs are convulsive and grotesque. The bowels are generally costive.

Causes.—*Predisposing.*—It is much more frequently seen in girls than boys. Its most common period of life, from seven to fifteen years; but it may occur later. Nervous temperament. Hereditary predisposition. Anything that causes general debility or depression of the vital powers, as excessive or premature exertion of the intellect, affections, or passions. Derangements of the digestive organs; insufficient diet; impure air.

Exciting.—Fright; irritation of worms; irritation of cutting the permanent teeth; rheumatic fever; the influence of imagination; concealed mental emotions; costiveness; irregular or retarded menstruation.

Treatment.—Purgatives to be selected according to the

age and condition of the health, which may be regarded as the predisposing causes. Tonics are useful in all cases, as the disease is essentially one of debility or diminished nervous energy. Bromide of potash or iron may be of use.

Cold bathing; shower-bath; nutritious diet; change of air.

CLERGYMAN'S SORE-THROAT.

Symptoms.—The earliest indications are not different from those of ordinary sore-throat, with some little irritation about the organs of voice. Then follow hoarseness, gradually increasing, and constant; difficulty in speaking or reading aloud; pain and soreness about the larynx. The voice may even be totally extinguished; or if by great effort the patient essays to speak aloud, the vocal resonance is uneven, harsh, and discordant. A thick tenacious phlegm is hawked up, but there is no cough. On looking into the throat, the back part has a raw granular look, or is studded with reddish raised specks. The surface will be seen streaked or coated with thick yellowish mucus or phlegm.

Causes.—Long-continued employment of the voice, as required by the profession of clergymen, barristers, members of parliament, etc. Debility; strumous constitution; abuse of tobacco-smoking.

Treatment.—Application of a solution of nitrate of silver, in the strength of half a drachm to an ounce of water, by means of a large camel-hair pencil, or piece of soft sponge, tightly tied to a stick or whalebone. Tonics, etc., change of air, cessation from use of the voice. The use of sulphurous acid (see *List of Medicines*).

COLD. *See* CATARRH, also Section on ACCIDENTS.

COLIC.

Flatulent Colic; Painters' Colic; Devonshire Colic; Iliac Passion, or *Ileus; Gripes.*

Symptoms.—The several varieties of colic have much the same symptoms; but the variety depends upon the cause, which also influences the treatment. They are all

marked by severe griping and twisting pains in the bowels; flatulency; vomiting; costiveness. The pains are intermittent, sometimes going off entirely, and are relieved by steady firm pressure.

The tongue may or may not be furred. The pulse is not usually accelerated at first, or unless the attack be severe.

In some severe cases the action of the bowels becomes reversed, and vomiting of fæces takes place. This form is called *Ileus*, or *Iliac Passion*.

Distinctive symptoms.—Colic may be mistaken for inflammation, and *vice versâ*. In inflammation of the bowels, pressure aggravates pain rather than relieves it, as in colic; the pain comes on gradually, and is more constant; the pulse is sharp and frequent; there is more or less fever. Costiveness from spasm of the bowels is often one of the first signs of inflammation of the bowels—and colic may also lead to inflammation. Nevertheless, the treatment for colic may safely be adopted when the symptoms indicate it. Hernia, or rupture in a state of "strangulation," may be overlooked, and taken to be colic. (See *Rupture*.)

Causes.—Severe spasm of the muscular fibres of the bowels, induced by exposure to cold; costiveness; indigestible food; acid and imperfectly fermented beverages,—as wines, spirits, cider, etc.; injudicious use of purgative medicines; poisonous fungi, fish, etc.; metallic poisons, as lead; irritation of teething, in children. In the *Iliac Passion*, or the stercoraceous colic, the movements of the intestines being reversed, a lower portion thereof sometimes slips into that above it, and causes what is called "strangulation," a physical obstruction to the passage of the contents of the bowel. In children, however, this not infrequently happens, and rights itself, or exists without producing symptoms.

Treatment.—1. *In common colic from cold or costiveness.*—Fomentations of hot water, with turpentine; or mustard plasters to the abdomen. If these and the medicines do not quickly give relief, a hot bath at 90° raised gradually to 110° should be used. For an adult, take of castor oil one ounce, laudanum twenty to forty drops, according to the age and severity of the pain. If need be,

epeat every two hours, for three times. Assist the action of these by clysters of turpentine and castor oil (see Prescription No. 73), adding, if the pain continue severe, thirty or forty drops of laudanum to each.

2. If the colic be traceable to sour beverages, unripe fruit, poisonous fish or fungi, or other indigestible food, let an emetic of mustard or ipecacuanha be taken immediately; at the same time fomentations or hot bath may be employed; then follow up by castor oil, as above ordered.

3. In *painters'* colic, or that from lead poisoning, give at once thirty or forty drops of laudanum, hot bath, etc., then a mixture of Epsom salts and alum, and opium (see Prescription No. 24).

4. In the colic of infants and children, give warm cordial magnesian or antacid mixtures (see Prescriptions Nos. 5 and 6).

N.B. Be very careful in giving opium to young children.

Alteratives and tonics (see *List of Medicines*) are required after the attack, in order to prevent a relapse.

A more important means of prevention is the avoidance of the causes. Painters, or persons using white lead or other metallic preparations, cannot be too particular in washing their hands before eating, and in observing personal cleanliness, at all times.

COMA.

Lethargy.

Symptoms.—Unnatural and irresistible sleep, with general torpitude of the muscles, and suspension of mental powers. Full, slow, often irregular pulse; the breathing slow; the pupils sluggish to the action of light; the countenance heavy, and without expression.

These symptoms may pass off entirely, or terminate in apoplexy, paralysis, convulsions, or inflammation of the brain, or death.

Causes.—This affection is in the majority of cases but one of the symptoms occurring in the course of diseases of the brain. It may, however, be caused primarily by intense cold (as travellers in the arctic regions have sometimes found to their peril), by narcotic poisons, intemper-

ance, excessive fatigue, depressing passions, injuries to the brain. It occurs in hysteria.

Treatment.—1. The lethargy induced by cold is only to be combated by every means to rouse the patient and keep the attention awake. When however these efforts fail, as is too often the case in consequence of previous fatigue and exhaustion, the temperature of the body must be gradually restored by rubbing the surface with snow; as the temperature of the body returns it should be wiped dry and rubbed with flannel. The patient being placed in a cold room, a little weak wine and water should be given. As recovery takes place stimulants must be very cautiously administered, lest the reaction be excessive.

2. When lethargy comes on independently of other diseases, or of extreme cold, a few leeches to the temple, or behind the ears, a blister plaster to the nape of the neck; a purgative; clysters of turpentine (see Prescription No. 73).

3. When it occurs in the course of other diseases, it is to be treated with respect to those.

CONSUMPTION.

Symptoms.—1. *Those indicating the approach of the disease.*—General debility, languor, susceptibility to colds, indigestion, irregularity of the bowels, loss of flesh, short dry cough, with occasional spitting of blood. In females, menstruation becomes irregular. 2. The preceding symptoms fluctuating for a longer or shorter time, sometimes almost entirely disappearing under favourable weather or great care; sometimes aggravated by exposure to cold, by extra exertion or fatigue. The loss of flesh becomes more evident; cough, instead of occurring only or mostly in the morning, becomes more troublesome and frequent, and is attended with expectoration of thick phlegm, and sometimes with blood. Profuse night sweats and diarrhœa occur. Under all these symptoms the patient gradually sinks, or he may be carried off by sudden hæmorrhage from the lungs.

Causes.—The deposit of a substance called "tubercle" in the lungs. The conditions which induce this are hereditary tendency, and all those circumstances which produce general debility. Among these are matrimonial alliance

between consumptive individuals, mismanagement during infancy, excessive fatigue, dissipation and irregular living, prolonged mental efforts, anxiety; deficient food, clothing, and light; impure air; inhalation of irritating particles, as in various trades; any drain on the constitution, such as excessive menstruation or too long nursing.

Treatment.—If possible, avoid all the above-mentioned depressing agencies. Seek a genial climate, such as will permit of following healthy out-door occupation; take regular and moderate exercise; protect against exposure to extreme changes of temperature, as from heated rooms to cold, damp air, with insufficient clothing, thin shoes, etc. Shun tight lacing, which will prevent the free expansion of the lungs.

By observing these means, and by adopting a liberal, even a full diet, and using all means to improve and maintain the general health, it not very unfrequently happens that the disease becomes dormant, and a silent process of healing goes on; but it is not within the power of man, as yet, to point out the particular cases in which this shall take place; therefore the pretension to *cure* consumption is sheer quackery.

Although consumption is not proved to be contagious, it is desirable that where a suspicion of constitutional tendency to the disease exists, the person should avoid breathing the impure air expired by a consumptive patient, as it is unwholesome under any circumstances.

When the disease is established the diet must be nutritious, consisting chiefly of milk and farinaceous substances and meat. Where the loss of flesh and the debility are great and rapid, a fuller quantity of meat must be taken, with porter, wine, etc. The medicinal measures will be confined to relieve symptoms as they occur. Tonics, such as citrate of iron and quinine, together with cod-liver oil; or mineral acids, the muriatic, sulphuric, nitric. The cough may be quieted by any simple mixture (see Prescriptions). Diarrhœa must also be checked by its appropriate remedies (see Prescription No. 20 or 23). Profuse sweating is often arrested by oxide of zinc (see *List of Medicines*). The inhalation of vapour of various substances has been vaunted as a cure, but when investigated by men of science the vaunted cure has proved a failure.

Change of climate, to be of any service, must be adopted in the outset of the disease. In the later stages it often hastens a fatal termination.

CONVULSIONS.

Fits.

Symptoms.—Sudden paroxysms of violent involuntary contractions of the muscles of a part of, or of the whole body and limbs. The contraction may last for some time without relaxation, or it may alternate with relaxations at irregular intervals.

Causes.—Convulsions are, in fact, but symptoms of other diseases; *e. g.* epilepsy, apoplexy, congestion, and other affections of the brain; violent mental emotion; hysteria; over-feeding, and the irritation of teething, in children; falls on the head; cold; intoxication; exhaustion from child-birth (puerperal convulsions).

Treatment.—*During the fit.*—Throw cold water on the face. Give stimulants, if swallowing be possible. Apply mustard poultices to the soles of the feet and calves of the legs.

In hysterical convulsions, and those from intoxication, the dash with cold water from a height should be employed *very freely*.

In infantile convulsions the child should be placed in hot water up to the waist or armpits, at the same time that cold water is sprinkled on the face, or poured over the head, or applied with a sponge. The gums should be lanced if the gums be swollen and hot (see *Teething*).

If the countenance be full and bloated, indicating congestion of the brain, a few leeches may be applied to the head.

In *puerperal* convulsions, large bleedings have been much practised, but it is found that the majority of such cases are more speedily cured by an opposite, or stimulating plan of treatment. (See next page.)

2. *After the fit* has passed off the object is to prevent the recurrence. This is to be done by carefully investigating the cause, and treating accordingly (see *Child-birth*, *Teething*, *Hysteria*, etc. etc.).

If over-feeding or indigestible food be the exciting cause in the case of an infant or child, an emetic should be given, and afterwards an aperient.

PUERPERAL CONVULSIONS.

Symptoms.—These resemble those of epilepsy, under other circumstances. They are apt to occur during the latter weeks of pregnancy, or during labour or the lying-in state, but may never again happen to the patient in after-life.

In one class of cases the convulsions are preceded by headache, giddiness, sense of weight and throbbing, and other symptoms of congestion in the brain. In another class, and that the most numerous, they occur in weak, nervous, and hysterical females.

Causes.—The peculiar condition of the constitution in the state of pregnancy, and at the time of labour. The fits are sometimes excited by indiscretion, by indigestible articles of food. If they occur during labour, they generally subside as soon as delivery is completed.

Treatment.—Where there are signs of congestion about the brain, strong purgatives and clysters should be administered. Five grains of calomel should be given at once; if this do not purge in two or three hours, it should be followed by *one drop* of croton oil, placed on the tongue or mixed in a little sugar. A turpentine clyster should be administered. Mustard plasters should be applied to the soles of the feet or calves of the legs. Stimulants should at the same time be given.

In the other class of cases, such as occur in hysterical, nervous, and feeble women, with small pulse, a different plan of treatment must be followed. Purging must be had recourse to. The face and head may be sprinkled or dashed freely with cold water. Stimulants, such as ether, sal-volatile, or brandy should be given. The turpentine clyster will be useful also in these cases.

CORNS.

A corn is a thickening of the skin, caused by pressure or friction. They are of two kinds, hard and soft. Soft

corns are those which form between the toes, and are kept soft by perspiration.

Treatment.—Soak the feet in warm water, carefully picking off the thickened skin, or paring it with a knife, taking care not to wound the tender skin beneath, then apply nitrate of silver. The black horny thickening of the skin which follows the application of nitrate of silver may be pared off with a sharp knife or razor in the course of a few days, and the application repeated. The root or core may be carefully dug out with a pointed instrument. After this, a thick plaster, with a hole in the centre, will relieve the pressure of the boot or shoe.

For soft corns, daily washing. Pare lightly, and gently touch with nitrate of silver.

COUGH

Is generally a symptom of catarrh, or some disease of the chest (see *Catarrh*, *Bronchitis*, *Croup*, etc.). Besides these, there are forms of cough which are frequently regarded and treated as distinct maladies.

Causes.—Nervousness; hysteria; derangement of the stomach and liver; the irritation of worms; relaxation of the uvula.

Treatment.—For cough from common cold, see Prescriptions Nos. 15, 17, 18, 19, 51. Cough proceeding from nervousness or hysteria (see Prescriptions Nos. 34 or 50). Coughs arising from derangement of stomach, liver, and worms (see *List of Medicines*).

For relaxation of the uvula, apply solution of nitrate of silver on a camel-hair brush or sponge to the uvula, or use an astringent gargle (see Prescriptions Nos. 70 and 71).

CRAMP. *See* Spasm.

CROUP.

Symptoms.—This disease generally commences with catarrh and hoarseness; or, perhaps without any such premonitory symptoms, the patient is attacked (most frequently in the night) with difficulty of breathing, each

respiration being attended with a peculiar shrill sound, somewhat resembling the passage of wind through a horn or metallic tube. There is a short dry cough, which has a peculiar barking sound, and is sometimes attended with expectoration of tube-like fragments of membrane. The voice is harsh and grating; the patient is feverish and restless; the countenance distressed; the pulse rapid. If not arrested, suffocation ensues: it may be in a few hours, or it may not prove fatal for several days.

Distinctive symptoms.—From *Child-crowing* (see that word).

Causes.—Constitutional predisposition, and the age of infancy; exposure to cold, or to a keen easterly wind. Croupy cough neglected may terminate in croup.

Treatment.—Put the patient in a hot bath. Give an emetic; *e. g.* fifteen or twenty drops of ipecacuanha wine in a little warm water every five minutes, until vomiting is produced.

To a child over one year of age, a teaspoonful of ipecacuanha wine repeated every ten minutes will not be too large a dose when given as an emetic. It is a safe remedy, as it will produce vomiting without the depression of the heart's action, which sometimes follows on the administration of antimonial wine, and which therefore renders the latter an unsafe medicine in non-professional hands.

While the patient is in the bath, apply a mustard plaster to the front of the neck and upper part of chest.

These means, if *promptly* employed, will generally arrest the most dangerous symptoms; but if the attack be severe, or if the symptoms do not yield within three hours, two or three leeches must be applied, care being taken that they bite over the bone of the upper part of the chest, as pressure to stop their bleeding cannot be used on the neck. The bleeding should be stopped by cold or pressure as soon as the leeches come off. If in the course of five or six hours after the removal of the leeches the symptoms have not markedly diminished in severity, if the cough and the breathing be still harsh and rough, if there be no sound of moisture or phlegm with the cough, a blister plaster should be applied on the chest near or over the leech-bites. The plaster should

remain on only two hours, and when removed a warm bread-and-water poultice should be applied to the surface. It will be found that the blistered surface will rise under the poultice, and will heal sooner than if the blister plaster be left on a longer time.

The next danger is to be apprehended from the spread of inflammation to the air-tubes in the lungs; therefore small doses of antimonial wine must be administered (see *List of Medicines*).

It is of great importance to keep the temperature of the patient's room uniformly warm (viz. from 60° to 70°). If it can be managed that the steam of boiling water shall be constantly supplied to the atmosphere of the room, it will greatly assist the treatment. A common kettle, with a long pipe fixed to the spout, will answer for this purpose.

A light farinaceous diet must be enjoined.

DANDRIFF.

Scurf.

Symptoms.—The production of numerous white scales on the skin, which accumulate and cause heat and irritation; most frequently met with on the scalp.

Causes.—Delicacy of skin; constitutional debility.

Treatment.—Frequent washing; or with pomatum at bed-time, and carefully washing with some mild soap the next morning.

The white of an egg, diluted with warm water, rubbed into the hair, and then washed out again with warm water, removes a good deal of scurf.

Medicine is not required unless there be any disorder of the stomach or bowels.

DEAFNESS. (*See also* Ear, Inflammation of, *etc.*)

Causes.—Obstruction of the outer passage of the ear by hardened wax; inflammation of the passage, "gatherings;" disorder of the nerve of the ear; diseases of the internal structure of the ear; affections of the brain; debility following fevers.

Treatment.—If from cold and hardened wax, syringing with warm soap and water.

If from gatherings or inflammation, a warm bread-and-water poultice, in muslin; and the passage to be syringed with warm water two or three times a day.

If neither cold nor inflammation have produced the deafness, it may be inferred that one of the last causes is in operation.

For these, apply counter-irritation behind the ears; such as blisters, repeated mustard plasters, or stimulating liniments (see Prescriptions Nos. 60, 61). It is important that medicine should be given for the general health.

DEBILITY.

Symptoms.—Languor; general weakness and inactivity; paleness of countenance; tongue moist, broad, tremulous, and marked at the edges with indentations by the teeth; weakness of voice, and loss of muscular power; coldness of the skin; want of appetite; sluggishness of bowels; loss of flesh; rapid, feeble pulse. Where the debility becomes extreme, the mental powers are impaired, and memory fails.

Causes.—Severe or acute illnesses; disorders of the digestive organs; hæmorrhages; excessive or prolonged bodily or mental exertion; intemperance; sexual excesses, etc.

Treatment.—Full diet; exercise in open air; tonics, such as quinine, gentian, steel, etc. (see Prescriptions and *List of Medicines*).

DELIRIUM.

Delirium is a symptom, and not a separate disease. It is noticed here under a separate heading because being a frequent but unimportant occurrence in children during any, however simple, febrile disturbance, it is desirable to disarm needless alarm. Its value as a symptom may be found under the headings of various forms of fever and inflammation.

DELIRIUM TREMENS.

Symptoms.—Nervousness; restlessness and sleeplessness; trembling of the hands and limbs; loss of appetite; coldness of limbs; feebleness of pulse; excessive perspiration; the tongue furred, moist, and tremulous; distressing dreams; excitability of temper; delusions of a horrible nature; suspiciousness. The patient becomes more and more excited and maniacal, and unless restrained will do violence to himself or others.

Causes.—Intemperance in alcoholic drinks, and opium-eating, are the predisposing causes.

In persons thus predisposed, an attack may be excited by any circumstance which depresses the vital powers, such as sudden deprivation of the accustomed stimulus; loss of blood; severe illnesses; the shock of any severe injury or accident.

Treatment.—Opium combined with stimulants in doses depending on the severity of the attack has been the treatment nearly uniformly prescribed in delirium tremens. It is, however, a treatment so fraught with danger that it has been abandoned by many of the most practical and scientific practitioners of the present day. It has been found that the administration of strong stimulants in this malady is not required—indeed, as the patient's system is already saturated with alcohol it is safer and more philosophical to withhold further stimulation. By keeping the patient in a quiet and rather dark room, and protecting him from doing injury to himself or others, and by giving plenty of nourishment, in the form of beef tea, milk, etc., sleep will generally ensue after a time. Small doses of Dover's powder may perhaps help to this end, but are not always necessary. This mode of treatment not only has the recommendation of safety, but it has also the advantage of giving the opportunity to break off the habits of intemperance to which the attack has been owing.

DIABETES.

Symptoms.—The discharge of very large quantities of urine, of a pale straw or greenish colour, containing sugar, having a peculiar odour, like milk or violets. This morbid

condition comes on insidiously, and is probably not noticed until it has existed some time. It is attended by constitutional symptoms, which also are at first slight and indefinite, but after a while become distinct and urgent. These are—debility; dryness of mouth and throat; loss of flesh; great thirst; a dry red tongue; increased appetite; costiveness; pains in the loins and pit of the stomach; chilliness. As the disease advances, all these symptoms become greatly aggravated; the spirits become depressed, or the mind anxious, listless, weak, or peevish; the legs swell, and the patient sinks.

Diabetes generally shows a grave disorder of the kidneys and digestive organs. It was formerly regarded as invariably fatal. As, however, the condition of the urine in disease is now more accurately investigated, the presence of sugar in the urine is found frequently to be a temporary occurrence. Diabetes is also now more readily detected in its early stages. In order to attain this object, so important to efficient treatment, we give the following tests:—

1. Pour a few drops of the suspected urine on a white plate, placed near a fire, or on the hob; while warm, drop a few drops of strong sulphuric acid, and continue the heat. If the urine contain sugar, the spot where the acid comes in contact with the urine will first become deep brown, and then black, by the charring of the sugar. If no sugar be present, the urine is changed to a pale orange colour.

2. Place a small quantity of the urine in a test-tube, or watch-glass; add half its quantity of strong solution of potash; heat the mixture carefully over the flame of a spirit-lamp; and the pale mixture will become of a deep brown colour, with a cloud of sediment.

3. Add a little yeast to the urine, and expose it to a temperature of about 80°; the mixture will soon become turbid, and ferment, producing a frothy scum having a vinous odour.

4. Allow the urine slowly to evaporate for some time by a gentle heat, and a treacly liquid, or syrup, will be formed.

There are other more exact tests than these, but they are complicated and cannot be undertaken by persons unacquainted with chemistry.

Causes.—These are not clearly made out. They are

however, usually referred to chronic disorders of the digestive organs, kidneys, or lungs.

Treatment.—An essential part of the treatment consists in a rigid attention to diet. For this purpose we give a list of articles to be taken, and those to be avoided.

1. *Articles to be taken.*—Mutton or beef two or three times a day. Ham or bacon occasionally, poultry, game, fish, shell-fish, cheese, eggs, sausages, brawn. Of vegetables: cabbage, greens, spinach, watercress. Condiments such as pickle, salt, mustard, pepper, etc. A very small proportion of farinaceous matters, such as brown bread, rice, etc. Beverages: water, beef-tea, broths, milk in moderation, sherry, brandy and water, tea, coffee, or cocoa free from sugar.

2. *Articles to be avoided.*—All sweet and starchy vegetables and fruits; especially apples, pears, and potatoes. Arrow-root, *sugar in any shape*, pastry, biscuits, cakes, etc. Malt liquors and sweet wines. Bran biscuits are prepared by some bakers especially for the use of diabetic patients, and are of very great value to these as articles of diet.

The medicines found mostly useful are: opium, in doses of from a quarter to one grain three times a day, according to the duration of the disease; mineral acids, tonics, etc.

DIARRHŒA.

Bowel Complaint.

Symptoms.—Frequent loose evacuations from the bowels, sometimes with considerable pain before and at the time of the action of the bowels; sometimes with nausea, vomiting, and cramps.

Causes.—The irritation of improper articles of food; excessive or vitiated bile; exposure to cold; extreme heat and vicissitudes of weather; morbid secretions from the bowels themselves; abuse of purgatives. In infants:—dentition, weaning, hand-nursing, cholera-poison; chronic disease in general.

Treatment.—Where the diarrhœa has been excited by improper articles of food, or by bilious derangement or morbid secretions, it will generally subside of itself in a few hours after the offending material has been carried off by a dose of castor-oil, or a rhubarb-draught. If,

however, the symptoms show no disposition to subside, a dose or two of the creasote mixture (see Prescription No. 23), or a single dose of solid opium (*e. g.* 2 grains for an adult), or a few doses of calomel and opium, followed by a warm aperient, should be taken (see Prescriptions Nos. 27, 28): if the purging continue, give an astringent mixture (see Prescriptions Nos. 20 or 23). The diarrhœa caused by cold, or atmospheric influences, or from abuse of purgatives, should at once be checked by opium or some warm astringent (see Prescriptions Nos. 20 or 23), or by Dover's powder or sulphuric acid (see p. 273).

In infants during teething the gums should be lanced, chalk and bismuth may be given (see Prescriptions Nos. 6 and 20).

For the treatment of choleraic diarrhœa, see *Cholera*.

External warmth, mustard plasters, will be useful to relieve pain in all varieties. The diet must be nutritious and unirritating; *e. g.* meat, bread, beef-tea, rice, arrowroot, brandy and water.

The treatment of diarrhœa from chronic disease, *e. g.* in the course of consumption, should be treated according to the directions given under the name of each disease.

If the diarrrhœa has been of long standing, *i. e.* chronic, acetate of lead or sulphate of zinc should be given (see Prescriptions Nos. 48 or 49).

DIPHTHERIA. *See* SORE-THROAT.

DROPSY.

Symptoms.—Effusion of the watery part of the blood into the natural cavities of the body, or beneath the skin either of a limited portion or of the entire surface of the body.

Causes.—Pre-existing disease of internal organs; suppression of perspiration from exposure to cold; debility from loss of blood, or from long-standing disease, such as consumption, fevers, etc. Acute or chronic inflammation of the membranes lining the principal cavities; congestion of the kidneys after or during scarlatina; chronic disease of the heart, liver, or kidneys.

Treatment.—1. *General* or *inflammatory dropsy*, or *anasarca.*—This proceeds either from debility or from inflammation; in the former case it is to be treated by tonics, diuretics, and purgatives (see Prescriptions Nos. 4, 12, 21, and *List of Medicines*). The inflammatory or febrile dropsy of the surface of the body, which suddenly follows on scarlatina or from exposure to cold, is to be treated by hot baths, diaphoretics and purgatives.

2. *Dropsy of the chest.*—Generally comes on after long-standing disease of the heart or lungs; from pleurisy; or during an attack of inflammatory dropsy. It is attended with great distress in the breathing; inability to lie down; extreme anxiety and pallor of countenance, and cold clammy sweat.

It is to be treated with reference to the nature of the disease from which it proceeds.

3. *Dropsy of the abdomen* proceeds from diseases of the liver, spleen, heart, etc., and the above treatment must be modified by the nature of these: as a rule it may, however, be said purgatives and diuretics are required.

DYSENTERY.

Bloody Flux.

Symptoms.—Shivering; heat; thirst; flatulence; frequent inclination to action of the bowels, attended with straining, and preceded by griping; loss of appetite; nausea; vomiting; rapid pulse; urine scanty and high-coloured. The evacuations, at first of a costive character, become scanty, relaxed, mixed with mucus, matter, and blood. If the disease becomes chronic, emaciation and debility follow, with fever of a low or typhoid character.

It is *distinguished* from diarrhœa by the scantiness of the evacuations, the violence of the straining, and the presence of fever.

Diarrhœa is apt to become dysentery.

Causes.—1. *Predisposing.*—Hot climate; cold and variable weather after prolonged hot and moist seasons; debilitated habit of body; deficient and unwholesome food; impure air, and fatigue.

2. *Exciting.*—Exposure to cold; damp clothes; sour or unripe fruit; tainted food; intemperance; and contagion.

Treatment.—The following indications should be held in view, bearing in mind that the remedies must be employed with due regard to the individual condition of the patient, and the acute or chronic character of the disease.

1. Remove from sphere of action of the predisposing causes, by removal to pure air and a healthy situation, and by relinquishment of bad habits of living, etc.

2. Subdue inflammatory symptoms;—if the pulse be full, by leeching, hot bath, fomentations, with or without turpentine; this indication is further to be followed by—

3. Promoting the action of the skin and kidney by use of Dover's powder, and salines (see Prescriptions Nos. 2 and 3). In addition to the Dover's powder, small doses of mercury with chalk (see Prescription No. 36), Clysters of two or three ounces of cold starch or gruel, with fifteen or twenty drops of laudanum, will relieve the pain of the straining.

4. Remove by gentle means the collection of morbid secretions in the bowels. If at first there have not been frequent action of the bowels, and the abdomen feels full, as from loaded bowels, and if the tongue be much furred, it will be well to give a dose of castor oil to begin with. This should be repeated, or a dose of rhubarb and magnesia given, every two or three days, to keep the bowels clear from irritating or acrid secretions, which further aggravate the symptoms.

5. Support the vital powers, and improve the general state of the health, by means of tonics (see Prescriptions Nos. 8, 9, 11, 32, 33) with a light nutritious diet of milk, eggs, beef-tea, etc.; wine if the pulse be feeble.

Dysentery in England is a much milder and more tractable disease than in hot climates, especially among Europeans. In persons of colour it is also generally disposed to assume a low or typhoid character, and calls for tonics with opiates, and careful abstinence from depletion.

In these, as in chronic dysentery, metallic salts, as sugar of lead, sulphate of zinc, etc. (see Prescriptions Nos. 11, 12, 48, 49), are of great service, combined with the general treatment above mentioned.

DYSPEPSIA. *See* INDIGESTION.

EARACHE.

Symptoms.—Severe pain attacking one or both ears; generally coming on suddenly, with or without inflammatory swelling of the ear-passage; often suddenly subsiding.

Causes.—Inflammation of the outer passage; foreign bodies, as insects, etc., in the ear; irritation in teething, or from an inflamed tooth; neuralgia or nerve-ache of the nerves of the face or head; inflammation in the bones of the skull; rheumatism.

Treatment.—Syringing; warm fomentations or poultices; a few drops of laudanum on cotton wool inserted into the outer passage; counter-irritation by mustard-plaster behind the ears; or the liniment (Prescription No. 60) behind the ears; attention to the general health.

EAR, NOISES IN.

Symptoms.—A sense of sounds of sharp shrill ringing, or whizzing, roaring, buzzing, or throbbing characters, in one or both ears, without an outward or distant cause.

Causes.—Obstruction to the free circulation of air in the passages of the ear; irregular circulation of the blood, or congestion of the vessels of the brain near the internal ear, proceeding from indigestion, hysteria, catarrh, the pressure of swollen glands in the neck; a hardened state of the wax of the ear.

Treatment.—Warm fomentations, or syringing with warm water; blisters or mustard plasters behind the ears; remedies suited to the deranged state of the digestive organs, or of the general health.

EAR, INFLAMMATION OF.

Symptoms.—Dull heavy pain in the ear, gradually increasing in severity; augmented by pressure, or by moving the jaw; hearing impaired or confused; headache; fever. Discharge of a thin or mattery fluid from the passage.

When the inflammation is confined to the inner ear, the pain and headache are more intense, there are noises in the

ear, the fever and other constitutional symptoms are much more severe; delirium sometimes occurs, the face becomes anxious, the skin hot, the pulse fuller and more rapid. After lasting a variable period, from two to forty days, these symptoms subside, or terminate by a discharge of matter from the outer passage, or by the internal passage into the throat; or by an external abscess behind the ear; or by still more serious disease of the bones of the skull, leading to fatal disease of the brain.

Causes.—Scrofulous constitution; dentition; exposure to cold; eruptive fevers; falls on the head.

Treatment.—Leeching behind the ear; purgatives (see Prescriptions Nos. 2 and 7), warm poultices and fomentations; blister plasters, etc.

If the disease has passed into a chronic state, as evidenced by the persistence of discharge from the ear, with most of the other symptoms in less degree of severity, blisters should be applied behind the ears, astringent injections (see Prescription No. 62), tonics, and other general means of improving the health.

ECZEMA.

Humid Tetter; Scall; Grocers' and Bakers' Itch.

Symptom.—An eruption of minute vesicles, or watery pimples, in great numbers, close together. Sometimes the vesicles are so closely collected as to form one large inflamed surface. The vesicles dry up and form thin crusts and scales, or they burst and a thin watery fluid exudes. The eruption may be situated upon limited portions of the body, or in many places at the same time.

The disease may be acute or chronic.

Causes.—Constitutional disturbance, as from affections of the digestive organs; dentition, in infants; or local irritants, as sugar, flour, soda, soap, etc., among grocers, laundresses, etc.; constituting what is known as 'Bakers' itch,' 'Grocers' itch,' etc.

Treatment.—According to the severity of the case, the constitutional affection must be more or less actively treated. Without this, local or external applications will be of but little use.

In the *acute* form the simple warm-water dressing of lint and oil silk, or local warm bath. Lotions of Goulard water, or, if this fail, solution of nitrate of silver of the strength of about four grains to the ounce of water. The itching may be relieved by the addition of laudanum to the lotion (see Prescription No. 63).

Chronic eczema, like most chronic skin diseases, is a very obstinate malady, and will require variation in treatment. Any one or more of the following will be found useful in some cases, but not in others; therefore, if after a few days' trial benefit is not received, a change should be made:—Corrosive sublimate lotion consisting of $\frac{1}{4}$ of a grain to the ounce of water; calamine ointment (Turner's cerate); white precipitate ointment; red precipitate ointment; tar ointment; sulphur ointment; mercurial ointment; lime water; creasote lotion (see Prescription No. 58); carbolic acid and alkaline lotions (see Prescriptions Nos. 53, 54, and 55). Common chimney soot sprinkled over the inflamed surface is a dirty remedy, but one that has been recommended; it has, at all events, the merit of being always at hand.

EPILEPSY.

Falling Sickness.

Symptoms.—Sudden, and perhaps only evanescent loss of consciousness, with or without spasmodic contraction of the voluntary muscles, quickly passing into convulsive distortions, ushered in by a loud shriek or cry; frothing at the mouth, followed by more or less deep sleep; recurring in paroxysms at uncertain or more or less regular intervals; frequently occurring in the night during sleep; often preceded by certain premonitory symptoms, such as giddiness, drowsiness, confusion of ideas, tingling of the surface, or a peculiar sensation as if a vapour were passing up the surface of the body from the extremities to the head.

These symptoms, constituting an epileptic fit, may vary very much in severity and in duration. Sometimes slight paralysis is left after the attacks. Frequent recurrence of the fits impairs the mental powers, and associates epilepsy with insanity or imbecility.

Distinguished from hysterical fits by the absence of laughing, crying, etc., and by the drowsiness that follows.

Causes.—Disorders of the brain or nervous system; hereditary predisposition; peculiarity of constitution; intemperance; over-exertion of the mind; over-indulgence of the passions; fright; irritation of the bowels from worms, etc.; irritation of teething; narcotic poisons; suppression of eruptive fevers; loss of blood.

Treatment.—During the fit but little can be done beyond protecting the patient from injuring himself. The serious bites of the tongue which often occur during the fit may be prevented by a piece of india-rubber, gutta-percha, or wood, placed between the teeth. The patient should be laid down with the head and shoulders raised, cold water poured upon the head; neckcloth, etc., loosened. Cramming the mouth with salt has been said to cut short the fit.

Much may be done, in the way of prevention, by invigorating the system, removing the causes as far as possible, and avoiding all circumstances which may excite an attack. The various mineral and vegetable tonics have all been tried, and found useful. Bromide of potassium is the most valuable remedy, but requires to be administered in full doses, and for a long time (see *List of Medicines*, and doses).

ERYSIPELAS.

St. Anthony's Fire.

Symptoms.—Redness, heat, and swelling of the skin of any part of the body, spreading superficially, attended with feverish constitutional disturbance. The swelling is slight, the colour shining red, disappearing on slight pressure, leaving for a few seconds a white spot or impression of the finger. This inflammation of the skin is attended with heat, pricking, or burning, and a sense of weight and tension. After an uncertain time blisters frequently form, containing a clear yellow fluid. The inflammation is prone to spread to adjoining parts as it declines in its preceding seat. When it is situated on the head and face it is attended with danger, as it is then apt to give rise to inflammatory disorder of the brain.

There is generally thirst, loss of appetite, rapid, and most frequently a feeble pulse.

Causes.—Erysipelas is a disease of debility. Certain conditions of the atmosphere, and the impure air of crowded hospitals, strongly predispose to it, as do also habits of intemperance, or any other causes that depress the vital energies, under which circumstances the slightest wound or scratch will occasion the recurrence of the disease. Exposure to cold will excite it, without the aid of any wound or external injury. Indiscretion in diet, or partaking of unwholesome food, will excite it, where the predisposition is strong.

Erysipelas may become an infectious disease in places where pure air, ventilation, and cleanliness are not strictly observed. It also occasionally prevails in an epidemic form.

Treatment.—If the tongue be furred, thirst urgent, and the feverish symptoms active, an aperient should be given (see Prescription No. 28). This should be followed by one ounce of port-wine in hot water with lemon, as negus, repeated every four hours; two grains of sulphate of quinine in solution, or thirty drops of muriated tincture of steel in water, being given every six or eight hours. The inflamed surface should be painted over with tincture of iodine. The spreading of erysipelas may sometimes be arrested by applying a narrow strip of blistering plaster along its margin; or, by carefully marking the skin with a moistened stick of nitrate of silver, at about a quarter of an inch from the edge of the inflamed surface. In mild cases, sprinkling the surface with flour will be found serviceable.

The tonic treatment here recommended is such as is generally required in erysipelas, at the present time; it must not, however, be forgotten that this, the prevalent character of the disease, may at another time be such as to require an opposite plan of treatment; the type of all diseases, but more especially of erysipelas, being greatly under epidemic influences, which vary from time to time. The cases of erysipelas now referred to will be characterized by a higher degree of fever, a stronger pulse, and fuller habit of body. They will be most probably met with in rural districts. The treatment in such cases will consist in, besides the local means above mentioned, the administration

of saline purgatives, tartar emetic, etc., instead of port wine quinine, or iron.

EXCORIATION. *See* ABRASION.

EYE, INFLAMMATION OF.

Ophthalmia.

Symptoms.—1. *Of mild or catarrhal inflammation.*—Redness of the surface of the eye, from fulness of the vessels of the outer coat, commonly called "bloodshot eye;" pain and smarting, as if from particles of dust or sand in the eye; swelling of the membrane on the surface of the eye, and inside of the lids. This form sometimes terminates by the formation of vesicles on the eye.

2. *Of severe inflammation (purulent ophthalmia).*—The above symptoms much aggravated, and attended with a profuse discharge of pus or matter from the surface of the eyes. Of this there are two forms,—one belonging to infants, the other to adults.

3. *Of scrofulous inflammation.*—In addition to the above symptoms, there is intense intolerance of light; the patients (generally children) hide their faces, and keep their eyes shut, to avoid the pain that light causes. There is generally a profuse flow of tears. This form is very prone to cause ulceration of the cornea (the transparent membrane on the front of the eye), by which opaque spots are left and sight impaired.

4. *Of rheumatic inflammation.*—The eye is less bloodshot, but the pain is greater in the ball of the eye itself, and the bones around the eye; there is intolerance of light, and the symptoms are more distinctly remittent.

5. *Of inflammation of the cornea.*—(The transparent membrane at the front of the eye, through which the light passes, loses its transparency, is the cornea.) Specks form on its surface; a pink ring of inflammation forms around its edge; at last the specks are seen to have become small ulcers, which, sometimes perforating the membrane, let out the fluid from behind its inner surface.

6. *Of inflammation of the iris or membrane which surrounds the pupil.*—This part loses its ordinary aspect, and becomes dull; its freedom of movement is impaired; its

border becomes irregular; the sight is dim; there is pain, and other signs of inflammation, as mentioned above.

7. *Of inflammation of the internal parts and whole globe of the eye.*—Severe pain, deeply seated; sense of distension of the globe of the eye; loss of sight; swelling of the eye; high fever.

Causes.—Exposure to cold; certain occupations; foreign bodies in the eyes; blows and other injuries; overuse of the eyes; constitutional disorders; contagion, etc.

Treatment.—In the slight inflammation that produces merely "bloodshot" eyes, with a little smarting, a lotion of sulphate of zinc, in the proportion of two grains to the ounce of water, should be dropped into the eye three times a day.

In all the varieties of the more severe inflammations the general principles of treatment are the same. The extent to which they are to be applied is to be measured by the severity and acuteness of the symptoms. Three or four leeches may be applied to the temples, and blisters behind the ears; purgatives and salines (see Prescriptions Nos. 1, 2); warm fomentations, or cold water lotion, as either may be more agreeable. Opiates (*e. g.* Dover's powder), to relieve pain. Low diet.

In inflammation of the entire structure of the globe, the greater severity of the affection requires free and repeated leeching, the administration of calomel (see Prescriptions No. 45 or 46), blisters, etc.

In scrofulous inflammation, active general treatment is not required, but a tonic plan of treatment (see Prescriptions Nos. 9, 10, 11, 22).

As the active symptoms in either form subside, the diet should be improved, tonics should be given, and astringent lotions made use of, *e. g.* alum or sulphate of zinc (see *List of Medicines*). Continued counter-irritation, by blisters or mustard plasters, will be found beneficial when the inflammation has passed into the chronic state.

Inflammation occurring in the eyes of newly-born infants, and accompanied with a discharge of yellow matter, requires prompt treatment. The outer surface of the lids, etc., should be frequently washed clean, with a soft sponge and warm water. A lotion of alum (4 grains to 1 ounce of

water) should be dropped into the eye every two or three hours. The best way of doing this is to lay the infant on the lap, drop a few drops of the lotion into the corner of the eye at the side nearest the nose, then separate the eyelids; the lotion will quickly find its way over the surface of the eye. This is essential to the cure.

It will make the dropping the lotion from the bottle easier if a shallow notch or groove be cut on opposite sides of the cork, which will then allow the lotion to drip from the neck of the bottle.

As this form is sometimes contagious, great care should be taken to keep sponges, etc., used in all such cases, carefully apart.

FAINTING.

Swooning.

Symptoms.—Temporary depression of the animal and vital actions, with paleness, cold perspiration, pulse feeble or absent from the wrist, respiration and sensation suspended for a short time.

(Swooning is prolonged fainting.)

Causes.—Strong impressions, moral or physical, made upon the nervous system; exhaustion consequent upon over-exertion; fasting; debility; loss of blood; affections of the heart; sudden change of posture in delicate states of health, or in disease, *e. g.* cholera, etc. Sudden loss of large quantities of fluid, etc., as in the operation of tapping, and after delivery in child-birth.

Treatment.—Let the patient be laid on the back, with the head placed low; plenty of fresh air; sprinkle the face with cold water; give stimulants, as brandy and water, or sal-volatile from ½ drachm to 1 drachm in water, carefully, as the patient may not be able to swallow freely.

FEVER, SIMPLE OR CONTINUED.

Symptoms.—Lassitude; pain in the back and limbs: feebleness of body and mental powers; disinclination to exertion; thirst; loss of appetite; nausea; disordered bowels; urine scanty and high-coloured; shivering, alternating with heat of surface; rapid pulse.

Causes.—Simple fever may originate of itself from the

agency of various external influences,—as cold and damp weather, impure atmosphere, insufficient or improper diet; or it may be what is called symptomatic, *i. e.* consequent upon inflammation or derangement of some organ or part of the body; or it may be attendant upon a specific eruption, —as small-pox, scarlatina, etc.

Treatment.—In simple fever, if the symptoms be active, an emetic (see Prescription No. 25) should be given, followed by an aperient (see Prescription No. 28). Local pains may be relieved by mustard plasters. Salines, alteratives, or diaphoretics at short intervals (see Prescription No. 2, and *List of Medicines*). Sponge the surface with tepid or cold water. After the subsidence of the active symptoms, the debility which remains will be benefited by quinine (see Prescription No. 4 or 9). The diet, at first of the mildest and blandest kind, will afterwards require to be raised to the administration of strong beef-tea, meat, wine, etc., according to the degree of debility that ensues.

Continued fever will generally run its course, which, however, is not definite, and either terminates in health or becomes typhoid.

The fever attending inflammation of special organs does not call for separate treatment, but is involved in the measures employed for subduing those diseases.

FEVER, GASTRIC OR BILIOUS,

Is continued fever in which symptoms of derangement of the stomach or liver predominate. It is generally of a low character, lasting several weeks, and is very prone to become typhoid; indeed, many cases of what is called "gastric fever" are but forms of typhoid, with sickness as a more prominent symptom than relaxation of the bowels.

Treatment.—Salines (see Prescription No. 2, 15); gentle aperients and alteratives (see Prescription No. 36 or 37); mustard plasters to the pit of the stomach. Diet of a light nutritious character, such as beef-tea, arrowroot, milk, etc.

FEVER, HECTIC.

Decline.

Symptoms.—Emaciation; increased frequency of the pulse; quickness of breathing; heat of skin; thirst; occa-

sional flush on the cheek; slight shiverings, followed by profuse perspiration; bowels irregular; urine high-coloured, and depositing a brickdust-looking sediment. The symptoms are aggravated towards evening. The flush on the cheek becomes more constant as disease advances; the tongue becomes dry and red, and thrush appears upon its surface; the bowels become relaxed; wasting sweats take place at night, or on falling asleep during the daytime; the ankles and feet swell; and if the progress of the disease be not checked, the patient sinks from sheer debility.

Causes.—Generally some evident or concealed chronic disease,—such as slow inflammation, ulceration, abscess, etc. of internal organs; disease of bones; extensive or frequent loss of blood; mental impressions; disappointed affection; harass and over-fatigue of body or mind.

Treatment.—Our means must be directed to the removal of any evident cause. If, however, the cause be some obscure or concealed malady, we should follow the principle of supporting the powers of the system by tonic medicines and a nutritious diet, with exercise in the fresh air, bathing, etc. Profuse perspiration may be checked by Prescriptions Nos. 11, 12, 31, 32. For diarrhœa, chalk mixture or creasote (see Prescription No. 20 or 23; see also Mineral Acids in *List of Medicines*).

FEVER, INTERMITTENT. *See* AGUE.

FEVER, REMITTENT OR ENDEMIC, OF HOT CLIMATES.

Symptoms.—Resemble those of continued fever, but they are more severe, and are preceded for several days by febrile premonitory symptoms. The fully-developed febrile symptoms continue from ten to eighteen hours, when perspiration breaks out, and the symptoms abate. This is a *remission*, not an *intermission*,—entirely free from the symptoms until the next paroxysm, as in ague. The remission generally takes place in the morning. These alternations are repeated for many days in succession, until they either subside with profuse perspiration, or gradually decline.

In warm and malarious climates this fever assumes a

more inflammatory character, and attacks unseasoned Europeans. The symptoms are all aggravated; the impression made upon the system is much stronger; the derangement of the liver and stomach much severer; the disease, in these cases, approaching to the characters of yellow fever.

Causes.—They are the same as operate in the production of ague and of continued fever: in its essential characters it partakes of both these forms of fever. Local malarious agencies in warm climates are its most frequent cause; hence its name, *endemic*.

Treatment.—The same as continued fevers, with the exception that the local inflammations, generally being of an acute character, require leeching and a more free use of calomel and purgatives.

It must, however, be borne in mind that this, like all fevers, is much disposed to take on a low or typhoid character, as indicated by feebleness of pulse, increased debility and prostration, tremors of the limbs, dryness of the tongue, muttering delirium, etc. In these cases stimulants, bark, wine, beef-tea, etc. will be required.

Quinine has been found by experience, in hot climates, to be as valuable a remedy in remittent as in intermittent fever or ague. It may be taken in doses of from two to five grains two or three times a day. Travellers in countries where endemic or remittent fever prevails have found that quinine exerts a preventive as well as a curative influence; for this purpose five grains of the sulphate of quinine may be taken in the morning, either in water or in wine.

FEVER, INFANTILE REMITTENT.

Worm Fever.

Symptoms.—Shivering; heat of skin; rapid pulse and breathing; thirst; furred tongue; headache; intolerance of light; tenderness over the stomach; nausea; vomiting, disturbed sleep; starting or moaning in sleep. Several or all of these symptoms constitute a paroxysm of the fever, occurring, mostly, during the night, and nearly disappearing towards morning. The child, however, continues ill: it is restless and fretful; has a short dry cough; is thirsty;

has a furred tongue, capricious appetite, disordered bowels, scanty and high-coloured urine. These symptoms may all be much less severe. There may be, day after day, simply increasing debility, with an indefinite feverish condition night after night, until the little patient sinks into a state of low fever; or the symptoms may be gradually replaced by signs of returning health. The duration of the disease may be six or eight weeks.

The symptoms vary almost infinitely in their characters and degrees of severity, so that scarcely any two cases will be alike. Convulsions occur in some cases, and, as they show a state of congestion or irritation of the nervous centres, are indications of greater danger. Inflammation of the bowels or lungs may be set up in the course of the disease. Diarrhœa often occurs.

Causes.—The period of teething predisposes; it may follow on other illnesses, or may be excited by cold, bad or excessive feeding. It has been attributed to the presence of worms in the intestines,—hence one of its names,—but without sufficient reason. It sometimes prevails epidemically. It is not infectious.

Treatment.—The principal object in the treatment of this fever is to regulate the diet very strictly, giving only the lightest food during the severity of the fever; such as arrowroot, sago, milk and water. As the symptoms amend, the diet may be increased by the use of beef-tea and other animal broths; small quantities of wine and water, if the pulse be feeble. Perfect quietness, rest, and confinement to bed, are necessary during the earlier and more acute period. A warm bath every, or every other night. Pure and fresh air should be freely admitted to the room, taking care that the patient be not chilled by too great a draught of air. Cold water in small quantities, *e. g.* a teaspoonful at a time, or small pieces of ice will be found grateful, and will not over-distend the stomach.

As for medicines, all that are required are such as promote the action of the skin and kidneys (see *List of Medicines*). A few doses of Grey powder and rhubarb (see Prescription No. 37), to correct the state of the secretions of the bowels, if disordered. If there be diarrhœa, a grain or two of Dover's powder every six or eight hours, if the

child be more than a year old. Cough may be relieved by the application of a mustard plaster, or Prescription No. 18. Quinine, or mineral acids, or steel (see *List of Medicines*), should be given as soon as signs of amendment appear.

This fever often continues for several weeks; and being one of slow progress, improvement must be patiently waited for.

Subacute or obscure and insidious inflammation of the brain may sometimes put on the form of infantile remittent fever. The temperature of the scalp, the symptoms referable to the nervous system, the presence of delirium, will help to the distinguishing between these two forms of disease.

It must however be borne in mind that children are prone to delirium during sleep, when suffering under the mildest and simplest forms of febrile diseases.

FEVERS, PUERPERAL.

Puerperal Inflammation; Inflammation of the Peritoneum, or Lining Membrane of the Abdomen; Puerperal Peritonitis; Milk Fever.

Symptoms.—Pain and extreme tenderness on pressure, with distension of the abdomen; the knees are drawn up; pain in the bowels on moving and taking a deep breath; thirst; loss of appetite; tongue furred. The attack generally begins with more or less shivering, and fever; the discharge becomes suppressed, and the secretion of milk diminished. The pulse is very rapid and small.

In some cases there is less tenderness of the abdomen, and the fever is of a low or typhous character; the pulse extremely feeble; the tongue having a thick, dark, or black coating. Delirium occurs. Diarrhœa still further prostrates the patient.

Sometimes this disease is of a lingering character, and abscesses form in the joints, limbs, and internal organs.

Neuralgic or hysterical pains may at first be mistaken for the above; but they are not attended with shivering, fever, and suppression of the discharge and of the milk.

Causes.—The lying-in state predisposes—constipation,

errors in diet, sudden suppression of perspiration, will excite these inflammations.

They sometimes assume an epidemic character; that is to say, when one case has occurred, others often follow. Childbed fever also frequently follows upon very protracted or difficult labours.

Treatment.—This will depend upon the strength of the patient and the character of the disease. No invariable rule can be laid down, as the latter point varies greatly in different seasons.

When the pulse is full and strong, and the pain very acute, a large number of leeches (from twenty to forty) should be applied on the abdomen: their bleeding may be encouraged by warm fomentation, or by a large bread and water or linseed-meal poultice. One of the pills (see Prescription No. 45) should be taken every four or six hours. If the bowels are confined, the aperient mixture (Prescription No. 7) should be taken.

If the symptoms do not abate under this treatment, a large blister plaster should be placed on the abdomen, followed by a linseed poultice. Mercurials, as blue pill or grey powder, may be given, stopping directly the gums become at all tender (see *List of Medicines*).

In those inflammations which have the low or typhoid character, in which pain is but slight, or perhaps absent, and the symptoms altogether obscure, a very opposite plan of treatment to the above is to be adopted. These cases often begin with indefinite symptoms referable to the nervous system; such as sleeplessness, distressing dreams, confusion of thought, etc. In a very few hours the pulse falls, and the patient soon exhibits all the signs of prostration. A soothing, not active, practice is called for. Five grains of Dover's powder and two of James's powder every six or eight hours, with a mild aperient dose, and warm turpentine fomentations applied to the abdomen, are generally the best-suited means for these cases. Beef-tea should be given frequently.

In the worst or typhoid cases, or which have become such in their course, the only plan of treatment that offers any prospect of cure is to support the constitution by means of stimulants, while it rids itself of its oppression from the

poisoned blood. Mercury, opium, etc., will do more harm than good. Wine must be given in frequent doses to maintain the pulse in its force. A tablespoonful may be required every few minutes. Brandy may even be necessary, so low does the heart's action fall in some of these cases. Where death seems imminent from exhaustion, there need be little fear of giving too much stimulus. By these means, apparently hopeless cases have occasionally been saved. The disease is one of blood-poisoning: if the nervous energies can be supported long enough, the poison may be cast out of the system by the various outlets to the circulation.

When amendment has taken place, and the constitution begins to bear a gradual diminution of the quantity of stimulants, bark and ammonia may be given. The diet must be augmented by nutritious substances when the stimulants are withdrawn.

Milk fever seldom occurs. When it does, it occurs about the third or fourth day, and is marked by painful swelling of the breasts, a general feverish condition, and rapid pulse, with sometimes a slight degree of excitement in the brain. It is caused by allowing the milk to accumulate too much before putting the infant to the breast, more frequently than by any other cause. The breasts therefore should be kept as empty as possible, and the general febrile disturbance treated by salines, aperients, and diaphoretics.

FEVERS, TYPHUS.

Camp Fever; Hospital Fever.

Symptoms.—The disease begins with an attack of shivering, and pain in the back, limbs, etc.; the febrile symptoms are, however, very distinctly marked by evidence of constitutional debility, as shown in extreme lassitude and prostration of power. There is a dull heavy expression of countenance and dusky hue of the face. The pulse is rapid, but feeble; the tongue, furred, soon becomes dry and brown, and tremulous when put out; the bowels may be either costive or relaxed; the urine scanty, and having a peculiar mouse-like odour; the skin, hot and dry. On or about the fifth day there will be seen on the body, spots resembling the eruption of measles, but of dull mulberry-

colour, seldom observable on hands, arms, or face, and disappearing at about the fifteenth day. In many cases there are also minute specks, technically known as *petechiæ*, resembling the bites of fleas. Spots resembling small bruises are also often met with on the skin of patients in typhus. This eruption may be distinguished from the petechial spots before mentioned, by their disappearing on pressure and readily reappearing.

When the fever is fully established, the brain generally becomes affected. There are tremblings or twitchings of the limbs, sleeplessness or distressing dreams, delirium, and in fatal cases, coma.

The stress of the fever may fall upon the lungs: there will then be cough, quickness of breath, and perhaps pain; but the latter may be entirely absent.

These symptoms either gradually diminish in severity, until they subside; or occasionally they subside by a critical perspiration, expectoration, or other discharge; or they terminate by coma or exhaustion.

The ordinary duration of typhus is about a fortnight.

Causes.—Infection originates typhus. It is often developed under unfavourable conditions, and its spread may be arrested by removal from the centre of infection into a pure air. In the course of other fevers, inflammatory diseases, and during the surgical treatment of serious accidents, as gunshot wounds, fractures, etc. The over-crowding of patients in the wards of hospitals generates an atmosphere by means of which typhus infection spreads to persons unaffected with fever, or in health previously.

Treatment.—In the outset, the same as the onset of other fevers; but afterwards it consists mainly in supporting the vital powers by nourishment, in the shape of strong beef-tea, soups, etc., and by wine as frequently as the patient will bear it. This must be estimated by the effect upon the pulse. If, after the administration of a tablespoonful of port wine, the pulse be greatly accelerated, and the face become flushed, it must not be given again until the pulse has fallen in frequency. If, however, after a dose of wine, the pulse become less frequent, and gain in strength, it is safe to continue its administration at regular intervals. This is required in almost every case.

The medical treatment may be limited to a few doses of saline mixture (see Prescription No. 3), and two or three grains of Grey powder (mercury and chalk) at night. Symptoms of morbid action in the brain, if at the outset of the fever, may be mitigated by two, three, or four leeches, and by the application of cold water, or ice, to the head.

Cough, or other indication of affection of the chest, calls for the application of mustard plasters.

Extreme sleeplessness, if it has lasted several days, may be allayed by a few drops (from ten to twenty) of laudanum; but this must be given with the greatest caution, as the brain in such cases is readily oppressed by opium. Quinine is useful in the later stages of this fever. From ten to twenty drops of spirits of turpentine, given twice or thrice in the twenty-four hours, is a useful stimulus.

It must be borne in mind that medicines can be of little avail in typhus and typhoid fever, unless the vital powers be sustained by cautious feeding and careful vigilant nursing.

In the preceding edition of this work, the fevers typhus and typhoid were described under one heading. The author has preferred in the present edition to follow the distinction observed and recognized by all later pathologists. Although the two forms may seem to be mixed up, and run into one another, yet they are generally sufficiently distinct to be known. Typhus is a more severe and more fatal disease than typhoid; it is also more infectious; indeed typhoid is seldom contagious; it originates in local causes, such as imperfect drainage, and has seldom, if ever, been known to be conveyed from person to person, as is well known to be the case with typhus.

Free ventilation and a full supply of fresh air goes far to disarm any fever of its infectiousness.

FEVER, TYPHOID.

Symptoms.— The symptoms of typhoid fever are very similar to those of typhus, but they are less severe at the outset and less sudden in their invasion; neither is the depression so greatly out of proportion to the febrile symptoms as in typhus. The name *typhoid* is often misapplied as being synonymous with typhus, but it should be restricted to describe a distinct form of fever. In this, the

prominent symptom is diarrhœa, whereas in typhus the prominent symptoms have reference to the brain. So distinctly is this difference observable, that by some typhoid is called "enteric" or "intestinal fever."

This fever begins insidiously; for several days the patient feels but very slight indisposition, perhaps merely as if he had a bad cold hanging about him.

As the fever becomes more pronounced, the languor, prostration, and flushing of the cheeks are noticeable, but the countenance has not the dull oppressed aspect observable in typhus. From about the seventh to the fifteenth day an eruption may be found. It consists of distinct scattered spots, not abundant, but varying in number from six to thirty; they are usually found on abdomen and back and thighs. They are of a pale rose-colour, not raised above the surface, disappearing on pressure and slowly re-appearing when the pressure is removed.

In some cases, as in other eruptive fevers, the rash may be absent, all other symptoms being present.

The common attendant upon typhoid, as already remarked, is diarrhœa, the essential internal affection being ulceration of the bowels. It is commonly indicated by pain of the abdomen, more particularly towards the lower part on the right side, although in some cases the pain is very trifling. There is usually much tenderness on pressure at this part. The evacuations are liquid, feculent, pale, and have a gritty or sandy appearance, and sometimes mixed with blood. The bowels are in some cases confined. The tongue is furred, or dry, or red at its tip, according to the severity of the fever; in mild cases it may remain moist and but slightly coated.

The average duration of typhoid is three weeks, but it may last five or six weeks, and may be prolonged still further by the ulceration of the intestines; and may at last prove fatal by perforation of the intestines and consequent internal inflammation, or the patient may sink from exhaustion.

Treatment.—In the early stages salines and the ordinary fever medicines may be given (see Prescription No. 3, and James's Powder; see *List of Medicines*); as the disease advances and its nature becomes evident from the

appearance of the characteristic spots, its course may sometimes be moderated, if not cut short, by two or three full doses of quinine, *e. g.* five grains, according to the age and vigour of the constitution, repeated at one hour interval for three times; two grains of the same medicine should afterwards be given every six hours.

The pain in the abdomen may be relieved by warm linseed poultices constantly applied and renewed so often as they get cool. If these do not give relief and the pain increase, from four to six leeches may be applied to the part, and the poulticing be renewed.

For the diarrhœa, if it persist, small doses of tannin or gallic acid, or of acetate of lead, with the addition of a small dose of opium if the pain be severe (see Prescription No. 48).

The diet should be mild and nutritious, *e. g.* beef-tea, milk, arrowroot, sago, etc. Small quantities of wine should be given if the prostration be considerable.

The greatest care should be taken to avoid overloading the stomach, or distending or irritating the intestines. N.B. Hard or solid food must not be taken until after convalescence is established, as there is considerable proneness to relapse after typhoid fever.

FEVER, YELLOW.

Yellow Typhus; Yellow Fever; Vomito Negro; Mal de Siam; Black Vomit; Bulam Fever.

Symptoms.—These present several varieties or degrees of severity; their general characters being those of continued or of typhoid fever; the special character of yellow fever being given by an alteration in the constitution of the blood, more particularly manifested in disorders of the liver, stomach, and intestines. This fever has also the peculiarity frequently observed in infectious diseases, that one attack protects the constitution, to a certain extent, from another attack.

Children are frequently the subjects of a milder form of this disease, which scarcely differs from an acute attack of continued fever, ending in perspiration after about thirty-six hours.

More commonly a severer attack of shivering suddenly occurs, attended with headache, pains in the back and

limbs, flushed face, bloodshot eyes, hot skin, tongue furred, nausea and vomiting, pain in the stomach, restlessness, drowsiness, bowels costive, urine scanty and high-coloured.

These symptoms may pass off on the second or third day, leaving only debility; or the patient may be seized with sickness and vomiting of the contents of the stomach, and afterwards of a dark-coloured fluid, becoming darker until it resembles pitch. The occurrence of black-vomit is generally, but not always, fatal. The countenance becomes depressed; the skin assumes a yellow tint, which spreads over the whole body. The vomiting continues, and occurs more frequently, attended with a peculiar hollow and loud noise. The patient retains his sensibility, is restless, desponding, and gradually sinks.

In the third form the preceding symptoms appear with aggravation, sooner than in the second variety. The black vomiting occurs earlier. Violent delirium early occurs. Bleeding takes place from the mouth, eyes, ears, and other outlets of the body. There is little urine passed. The tongue is moist and raw-looking. The yellowness of the skin speedily appears. The attack is so rapid that the patient may be carried off on the second or third day.

In another form the disease is equally severe and fatal, but is slower in its progress, each symptom enduring a longer time. The temperature of the surface of the body is less, and sooner falls below the natural standard. The pulse is more feeble, and sooner sinks. The disease has altogether, in this form, a typhoid character.

In all these modifications, the great danger is from depression of the vital energies, change in the condition of the blood, and the extent and frequency of black vomit. A high degree of febrile or nervous excitement does not indicate so great danger as does this state of depression. In the majority of cases, distinct stages or periods in the progress of the disease will be observable: 1st, lasting a few hours; the invasion characterized by shivering, headache, pains in the limbs, etc.; 2nd, lasting from two to three days, the stage of excitement, in which all the febrile symptoms become augmented; 3rd, that of depression, in which the worst symptoms appear, continuing from a few hours to several days.

Causes.—1. *Predisposing.*—Persons of adult age are more frequently attacked than children or aged people Males are more prone than females to this infection; as are also individuals of a robust habit and sanguine temperament. Irregularity of living; excesses of any description; fatigue; mental emotions, or any other depressing influences, render persons more liable to contract the disease; warm, moist, and stagnant states of the atmosphere, hot seasons.

2. *Exciting.*—A specific infection given off from the bodies of the sick; often suddenly breaking out and spreading with frightful rapidity where the above-named unfavourable conditions exist, in seaports and other places, the medium of import thither being clearly traceable. It is this feature that, as much as any others, distinguishes yellow fever from bilious remittent fever originating from endemic or local causes. It remains, however, unproved whether an endemic fever can, by over-crowding, want of ventilation, and a high temperature, become converted into the infectious yellow fever.

Treatment.—The first and most important measure is to place the patient in pure air, and to prevent, by all means of ventilation and cleanliness, the contamination of the atmosphere.

In the first stage, and in milder forms, tepid baths, or sponging the body with cold water: aperients should be given, followed by simple fever mixture (see Prescription No. 3). The same means should be continued in the second stage, somewhat more actively. Small quantities of warm brandy-and-water may be given at intervals. The closest watching is required to observe the first approach of the state of depression or debility which quickly follows. Thirst should be allayed by acidulated drinks, or soda water, or champagne. Before the signs of depression appear, quinine should be given in doses of two or three grains every four or six hours. When the vomiting becomes dark, or if bleeding takes place from any part of the body, from half a drachm to a drachm of spirits of turpentine, with one or two drops of creasote every six or eight hours; turpentine fomentations to the abdomen and thighs; clysters of turpentine. At the same time wine or brandy should be freely administered.

The frequency and activity with which remedies are employed must be regulated by the rapidity and intensity of the attack.

It must be borne in mind that in a disease like the present, the great danger of which consists in the depression of all the vital powers that is induced, bleeding, or calomel beyond one or two doses to act as purgatives, are remedies which should not be used, as they are calculated to accelerate the very condition which it is most desirable to avert by the administration of tonics and stimulants. Of the latter, the most generally accessible, and, at the same time, most serviceable, is the spirit of turpentine, successfully employed by Dr. Copland many years ago. This medicine may be given in the second stage as a purgative, and in the third stage in small and repeated doses as a stimulant (see *List of Medicines*). Combined with creasote, it will tend to check the vomiting.

The use of tonics must be continued some time after recovery, in order to ensure and maintain convalescence.

FITS. *See* CONVULSIONS.

FLATULENCY.

Symptoms.—Distension of the stomach or intestines by accumulation of gases in the stomach or intestines; producing griping pains, palpitation, eructations, etc. etc.

Causes.—Decomposition of articles of food; imperfect mastication; indigestion; neglect of the action of the bowels; hysterical constitution; inflammation of the bowels; the last stages of some fevers.

Treatment.—Carminatives, *e. g.* essence of peppermint or ginger, tonics and mild aperients, regulation of the diet and habits of living.

In infants, flatulency may be remedied by magnesia in dill-water (or Prescription No. 6); the diet being strictly watched, or varied if the symptoms continue.

GANGRENE. *See* MORTIFICATION.

GOUT.

Symptoms.—With or without the occurrence, for an

uncertain period, of premonitory symptoms, consisting in derangements of the digestive organs, disturbed sleep, feverishness, etc., a fit of gout most frequently comes on during the hours of night; very severe throbbing pain is felt in some joint, most commonly in the ball of the great toe, with tenderness, heat of the part, stiffness, and a sense of distension and weight; the joint is swollen, red, and shining. These symptoms go on augmenting, the pains extend to the foot and leg, the fever becomes more severe. Towards morning the symptoms generally subside somewhat, with the breaking out of perspiration; they will remain in this mitigated degree during the day, and will return in all their intensity during the following night; and thus the "fit" may continue for several days, when it will subside and return at intervals,—very much dependent upon the manner in which the patient diets himself in the meantime.

The paroxysms are attended with the general signs of disordered digestive organs.

Other joints besides the feet may be attacked, and these in rapid succession, the disease shifting from one to another.

The disease, unless counteracted by careful dieting and treatment, and a rational mode of life during the interval, will become fixed as a chronic disease, and lead to impairment of the functions of the most important organs of life, as well as impeding the free use of the limbs, from debility, concretions of chalk-stones, etc. Not only do the symptoms of gout show themselves in the joints, or by disorders of the digestive organs, but they are often manifested in vital organs, as the heart and brain. Severe palpitation and pain in the region of the heart, with extreme distress and anxiety in the respiratory organs, are experienced. Severe and agonizing cramps of the stomach and limbs are apt to occur. Various nervous affections, if not even paralysis and apoplexy, frequently supervene during or subsequently to an attack of gout. These last attacks are usually termed irregular or retrocedent gout.

The *distinctive* symptoms of gout will serve to distinguish it from rheumatism, the disease with which it may be confounded in a first attack. In the chronic state it becomes so closely allied as to be sometimes scarcely distinguishable. There is, in fact, a form of malady, known as

rheumatic gout, which is essentially a combination of the conditions of both.

Acute rheumatism is seldom confined to one joint, gout is so; rheumatism generally attacks the larger joints, gout the smaller; the pain of gout is of a more acute and cutting character than that attending rheumatism. Gout is an hereditary disease, rheumatism is not thus transmitted; the history of the attack, the habits of life, etc., of the gouty patient, will also assist in the distinction.

Causes.—1. *Predisposing.*—Hereditary influences; the adult age; the male sex; habits of life as to indolence, self-indulgence, and gluttony.

2. *Exciting.*—Excess, or indiscretion in diet; neglected bowels; exposure to cold; over-exertion, mental or bodily.

Treatment.—1. *Of the premonitory symptoms.*—Give a dose of calomel or blue pill, and a warm aperient draught (see Prescription No. 28). Warm bath; low diet.

2. *Of the attack.*—If the swelling, heat, and redness be severe, a few leeches may be applied to the inflamed part; generally, warm fomentations or poultices, moistened with laudanum, will give relief without leeching. Purgatives should be given early; *e.g.* calomel 5 grains, followed by a senna or rhubarb draught (see Prescription No. 7 or 28). When the bowels have been freely cleared out, give 10 or 15 drops of colchicum wine, three times a day. If there be much fever, four grains of James's powder should also be given. Pain may be relieved by doses of Dover's powder at bed-time. The warm-bath, daily, will be found of great service. Warm foot-baths, with mustard diffused through the water, and the feet afterwards enveloped in wool, will promote perspiration, and moderate the inflammation. As the severity of the attack subsides, quinine may be given, or tonics with alkalies (see Prescriptions Nos. 4, 8, 9 or 10).

During the paroxysm the diet should be light and simple. In increasing the diet after the attack has passed off, all stimulating drinks and rich food should be avoided.

3. The prevention of the return of gout is to be effected by careful dieting, by rigid temperance, by exercise in the open air, and by attention to the state of the digestive organs.

Irregular or misplaced gout, producing severe cramp of

the stomach, palpitation of the heart, and affections of the brain, requires as quickly as possible that the disease be re-excited in the extremities. Hot foot-baths, mustard plasters, stimulants given internally, *e.g.* ammonia or ether, antispasmodics and opiates (see Prescriptions No. 34; or *List of Medicines*); an active purge should also be given, or a stimulating clyster of soap and turpentine (see Prescription No. 73). If the stomach be the seat of the attack, a mustard plaster should be applied over its region, or rags soaked in spirits of turpentine, in order to redden the surface.

Mineral waters, change of air and scene, are important means of preventing returns of the attacks, if they be conjoined with judicious habits of life.

GRAVEL.

Symptoms and Causes.—The urine, after standing some time, deposits a sandy or muddy sediment of pink, red, or white tints. The *white* gravel is not commonly met with, and is associated with conditions of debility or long-standing disease. *Pink* gravel is met with in hectic fever and chronic disorders of the digestive organs. *Red* gravel is very common in inflammatory complaints, in rheumatism, in common cold, and in slighter disorders of the digestive organs.

A "fit" or paroxysm of gravel consists in the occurrence of severe or agonizing pain in the loins or abdomen, passing down the inside of the thighs and into the testicles. The pain may subside for a short time, but will perhaps return with all its severity in a few hours. After several paroxysms, the attack entirely passes off. The urine may be entirely suspended for some time, and subsequently be voided in large quantities. It is necessary that the urine should be closely watched for several days after the attack has passed off, as a particle of gravel, varying in size, may be passed therein. This concretion of gravel formed in the kidney has been the cause of the pain, by having been detained in the tube leading from the kidney to the bladder.

Treatment.—As gravel is but a symptom or effect of some other disorder, it is obvious that these must be attended to in order to remove the sediment from the urine.

If, however, the original cause be not very plain, it may be said generally, that for red gravel alkalies should be given (see Prescriptions Nos. 5, 10, 27, and *List of Medicines*); for white gravel, mineral acids or other tonics (see Prescriptions Nos. 13, 32, and *List of Medicines*). The "fit of gravel" requires a hot bath, and doses of opium, ether, etc., to relieve pain (see *List of Medicines*).

GREEN SICKNESS. *See* Chlorosis.

GRIPES. *See* Colic.

HÆMORRHAGE. *See* Bleeding.

HÆMORRHAGE AFTER DELIVERY.

Attentive watching is demanded for at least two hours after labour, in order to be certain the discharge of blood is not too profuse.

It happens frequently, that after all due attention has been paid to the patient, when the uterus has been firmly contracted, when no faintness has been noticed, and everything seems to be going on well, suddenly the patient's countenance becomes blanched, she feels sick, complains of indistinctness of vision, yawns, and throws her arms about. Such symptoms direct immediate attention to the fact of a discharge of blood which will probably be found flowing in a full stream; if not quickly stanched, the patient may pass into a fatal swoon. The pillows must immediately be taken from beneath the head; the doors and windows opened, so as to admit plenty of fresh air, unless the weather be intensely cold; cold water is to be dashed on the lower part of the abdomen, and ice-cold wet napkins to be applied to the external parts, while pressure is made upon the womb. If an enema syringe be at hand, a stream of cold water should be pumped into the vagina. The pulse will be scarcely perceptible. A dessertspoonful of brandy or half a teaspoonful of sal volatile in water should be given every quarter of an hour. If these do not rally the pulse, larger quantities of brandy may be administered. Pressure should all the while be kept up over the womb, by the hand placed on the outside of the lower part of the abdomen. By the above means it will probably again con-

tract, whereby the flooding will be checked. The same treatment must, nevertheless, be continued for some time, as that organ will be disposed to relax again as soon as the pressure and cold applications are discontinued.

HEADACHE

Is usually a symptom of some disorder of the brain, nervous system, or digestive organs. It presents great varieties of character, depending upon its

Causes.—1. *Headache from congestion*, or over-fulness of the vessels of the brain, occurs from those causes which impede or increase the circulation through the brain—as tight neckcloths, stooping, the use of narcotics, intemperance prolonged or excessive mental exertion, fevers, irregular or suppressed menstruation, exposure to the sun, etc. The pain is of a deep-seated heavy character, throbbing, with noises in the ears, giddiness, fulness of the eyes.

2. *Nervous headache* arises from any moral or physical agency by which the vital powers are depressed. The pain often comes on suddenly, and is very acute and darting, attended with giddiness and nervous agitation; the head cool and face pallid. The pulse is feeble. There is no febrile disturbance. This form is very generally worse in the morning than in the evening. It often assumes an intermittent type. Hysterical persons are liable to this form of headache.

3. *The bilious or sick headache* is attended with nausea or vomiting, heartburn, and other evident signs of disordered stomach or liver. The pain is very acute or heavy, often confined to one side of the head, or moving from one part to another. This variety is caused by errors of diet, by intemperance, by excessive mental exertion, and moral excitements; by derangements of the stomach, costiveness, etc. This form of headache is frequently associated with hypochondriasis.

4. *Rheumatic headache* accompanies catarrh, and may generally be found to be external, as indicated by its being increased by movement, by the character of the pain, by the tenderness of the surface, by the presence of symptoms of rheumatism in other parts of the body, and by its having been caused by cold.

5. *Headaches from organic affections of the brain.*—These are referred to in their own places. They may be distinguished from either of the preceding by their being more constant and prolonged, by the frequent occurrence of retching, or by the presence of convulsive or paralytic affections.

Treatment.—1. *For nervous headache.*—A mild warm aperient (see Prescriptions Nos. 27, 28). Stimulants; tonics; antispasmodics (see Prescriptions Nos. 8, 9, 33, 34, and *List of Medicines*).

2. *For congestive headache.*—Purgatives, leeching, hot foot-baths. If the patient be feeble, stimulants, tonics, shower-bath, etc., will be required.

3. *For bilious* or *sick headache*, emetics, purgatives, etc.

4. *Rheumatic headache* will be relieved by external warmth, by quinine and alkalies or colchicum wine (see Prescription No. 4, and *List of Medicines*).

HEART, DISEASES OF.

The entire range of organic diseases of the heart, including inflammation, enlargement, fatty degeneration, etc., can only be correctly ascertained by those who are acquainted with the use of the stethoscope. For non-professional persons, therefore, it is useless to enter upon their detailed description.

HEART, DISORDERED ACTION OF.

Palpitation.

See also Angina Pectoris.

Symptoms.—Increased frequency and impulse of the heart, with irregular and tumultuous action, with little pain; shortness of breath, and feeling of faintness.

Causes.—Debility; dyspepsia; gout; depression or over-exciting mental emotions and passions; hysteria; pregnancy; costiveness, etc.

The functional or temporary nature of palpitation of the heart may be gathered from its sudden commencement, and the co-existence of other derangements of the system. If the symptoms proceed from organic disease, they are more gradual in their appearance, and are generally more or less constant; whereas functional palpitation is absent for un-

certain and often long intervals, until excited by a repetition of the same causes.

Treatment.—An attack of palpitation may be relieved by Prescription No. 34. But its prevention is to be effected by the treatment of its cause, and by the use of steel, zinc, and other tonics (see *List of Medicines*).

HEARTBURN. *See* INDIGESTION.

HERNIA. *See* RUPTURE.

HERPES. *See* TETTER.

HICCUP.

Hiccough; Hocket.

Causes.—Irritation of the stomach by indigestible or unmasticated food; hysterical laughing; irritating matters in the intestines; diseases of the organs in the abdomen; pregnancy.

Treatment.—A draught of cold water; ether; antispasmodics,—as camphor, ammonia (see *List of Medicines*); mustard plasters on the pit of the stomach.

HIP-DISEASE.

Symptoms.—The earliest indication of disease in the hip-joint is given by occasional pain and stiffness in the joint, with slight lameness in walking; at the same time, or earlier, pain in the knee is complained of. When the limbs are examined, one may be found to be elongated and emaciated; the convexity of the hip is flattened, so that the furrow between it and the thigh is less distinct and more oblique in its direction; in standing, the toe is turned out. The pain in the hip-joint becomes aggravated by sudden pressure, or jerks on the sole of the foot; the pain is increased during the night, and in damp weather. This state of things may continue for many months. The symptoms may gradually disappear, or become worse. In the latter case the limb becomes shortened; movement still more painful, or impossible; the foot is permanently turned outwards or inwards. About this stage of the malady, abscesses form either on the outside of the thigh or in the

groin or hip. In some few fortunate instances the abscesses disappear. Most frequently they go on increasing until they are opened or burst. The patient then wastes, and probably dies in hectic fever; or it may be that he recovers, although with a stiff joint and wasted limb.

Causes.—Scrofulous constitution; the period of childhood, the disease being more frequently seen in children than adults; blows or other injuries to the joint.

Treatment.—Perfect rest in bed in the recumbent posture, the limb being kept in a bent or half-sitting posture, the knee also being half bent and supported by a pillow beneath it. Leeches should be applied in the early stage. Absolute rest must be maintained steadily for months. Opiates should be given to prevent the limb from being jerked by startings during sleep.

Blisters, repeated and kept open, should be applied, in order to check inflammatory action; cod-liver oil, steel, or other tonics, should be given (see *List of Medicines*).

HOOPING-COUGH.

Chin-cough; Kink-cough.

Symptoms.—Usually those of a common cold and cough for the first few days, varying from two or three to twelve or fourteen. Gradually the catarrhal symptoms subside, the cough occurs in fits or paroxysms, and is attended with a prolonged inspiration towards the end. This soon becomes converted into a distinct sound, which almost articulates the word "*whoop*." The cough has now become spasmodic, and will occur in rapid successions of expirations, with apparent threatening of suffocation; the face becomes red, turgid, and blue, from the obstruction to the passage of blood through the lungs. The fit may last for several minutes, and frequently terminates with vomiting, either of the accumulated phlegm or of food.

The fits of coughing return at uncertain intervals: when the disease is at its height, they will occur as often as every five minutes. After the cough has attained to its height, which it does in about ten days, it gradually declines in severity, although it may last for several weeks or months.

The cough may be complicated and aggravated by the addition of bronchitis, inflammation of the lungs, congestion of the brain, convulsions, infantile gastric fever, etc.

Causes.—Epidemic constitution of the atmosphere ; and infection.

Treatment.—Until the catarrhal symptoms have given way to the undoubted hooping-cough, the treatment must be the same as for catarrh. Subsequently the disease becomes spasmodic, and requires generally an opposite plan.

The following, known as Beattie's mixture, is perhaps the most useful for ordinary uncomplicated hooping-cough, for a child of two years of age and upwards :—

Tincture of Cantharides	1 dr.
Paregoric	1½ dr.
Compound Tincture of Bark ...	3 drs.
Syrup of Tolu.....	2 oz.

A teaspoonful to be given three times a day.

The chest may be freely rubbed with spirits of turpentine, or camphor liniment, twice a day.

If the cough be complicated by catarrh, bronchitis, fever, etc., the remedies proper to those affections must be employed. The most important point in the treatment of hooping-cough is the protection of the patient from changes of temperature, as these excite paroxysms of coughing. With this view the child should, if practicable, be kept in the same room, day and night, for from four to six weeks. After this period, if the weather be mild, the child may be allowed the range of other rooms, and after a few days may be taken out in the open air. After two months, entire change of air will frequently cut short and completely cure what may remain of the cough.

It is generally believed that after six weeks infection ceases.

The remedies that have been recommended in hooping-cough are innumerable: among these the best are alum, ether, and oxide of zinc (see *List of Medicines*).

The medicine above prescribed is that from which the author has derived the greatest satisfaction. It may be well to add that costiveness or disorders of the bowels must be removed by their appropriate remedies.

HYDROCEPHALUS.

See BRAIN, INFLAMMATION OF, OR DROPSY OF.

HYDROPHOBIA.

See BITES OF DOGS.

HYPOCHONDRIASIS.

Vapours; Nervousness; Low Spirits.

Symptoms.—This disorder begins with, or results from, chronic indigestion, and is attended by languor, flatulency, loss of appetite, sleeplessness, depression of spirits, fear, imaginary diseases, distressing dread of impending dissolution; the mind becomes weakened.

Causes.—Disorders of the liver, stomach, etc.; over-exertion of the mind; depressing passions; excessive use of mercurial medicines; vicious habits, and excess in sensual indulgences.

Treatment.—Remove the causes by attention to the state of the digestive organs, by change of scene, and by relaxation from business and anxious care; use shower-bath, sea-bathing; take mineral waters, alteratives, stomachic aperients and tonics.

HYSTERIA.

Symptoms.—These are almost as various and numerous as there are diseases which flesh is heir to. The disease itself being a peculiar morbid condition of the female nervous system, frequently imitates every other disease. Like other mimics, however, it is apt to exaggerate or overact its part; thus pain, which is one of the most common symptoms, is always too intense and acute for the complaint it simulates, and will be found not to be limited to the region or organ supposed to be affected, but is equally readily elicited by pressure upon other parts of the surface of the body. The imitation is difficult to detect in many cases, as it may coexist with other more real and more serious disease. The following characters may assist in detecting the existence of hysteria:—Occurrence of the symptoms by paroxysms, attended with pain in one spot on the left side, just below the ribs; palpitation of the heart; difficulty of breathing; flatulency; peculiar choking sensation, as of a

ball in the throat; and the discharge of large quantities of limpid urine. Hysterical patients are generally very elaborate and exact in their description of their various pains and sensations.

These general signs of hysteria often precede an attack of convulsions or hysterical fit (see *Convulsions*), in which the patient throws herself about in a violent manner, laughing, crying, screaming, etc.

Coma or stupor sometimes suddenly comes on in hysterical females, but readily yields to treatment, or passes into the hysterical fit. The breasts, and the large joints, are liable to hysterical pains; the voice, also, is often impaired or lost in hysteria.

Causes.—Constitutional peculiarity; irregular menstruation; general debility; luxurious living; over-excitement of the imagination and emotions; injudicious physical and moral training; disappointed affections; chagrin attending celibacy; solitary vices; sedentary occupations; previous illness.

Treatment.—Attention to the general health. Medicines should consist chiefly of stimulant antispasmodics, as tincture of assafœtida, tincture of valerian, and purgatives (see *List of Medicines*); diet and regimen adapted to promote bodily health. Hysterical coma or stupor requires the cold douche, and the administration of stimulant clysters of turpentine, with the addition of tincture of assafœtida (see Prescription No. 73). In hysterical fits, the cold douche should be administered with small stint, a large jugful of cold water being repeatedly dashed on the face from some height above. The assurance that the diseases simulated by hysteria are unreal, or free from danger, will often cure them. Hysterical patients are specially open to mental influences; hence they form the readiest dupes of all kinds of quackery.

INDIGESTION.

Dyspepsia; Heartburn.

Symptoms.—Various kinds of pain in the region of the stomach, extending through to the back and shoulders, occurring soon after taking food; distension from flatulence;

heartburn; eructation of acid or acrid matters; nausea, and sometimes vomiting soon after eating; pale or furred tongue; irregularity of the bowels. Headache, palpitation, disturbed sleep, depression of spirits, and other sympathetic affections.

Causes.—*Predisposing.*—Sedentary occupation; intense study; irregular or luxurious modes of living; want of exercise, etc.

Excitants.—Overloading the stomach; abuse of narcotics, as tobacco, opium, etc.; imperfect mastication of the food; too free use of mercurial purgatives; indigestible or too highly seasoned articles of food; intemperance; violent mental emotions, etc.

Treatment.—In a disease the symptoms and causes of which are so numerous and varied as are those of indigestion, it is useless to give more than general directions for its management.

1. Endeavour to ascertain, and then, if possible, avoid the causes.

2. Relieve present urgent symptoms,—such as acidity, heartburn, flatulence, pain, etc. This may be done by half a drachm of carbonate of soda or magnesia in a wine-glass of water. Pain may sometimes be relieved by a tumbler of hot water, or by a teaspoonful of sal-volatile in a wine-glass of water; or, if the pain continue very severely after the use of the above-named remedies, from ten to twenty drops of laudanum may be taken in a wine-glass of water.

3. To prevent a return of the disorder, adhere for some time to a light diet, especially avoiding all things found by experience to disagree. After the urgent symptoms have subsided, tonic medicines should be taken, *e.g.* mineral acids (see *List of Medicines*). At the same time the bowels must be kept open by mild purgatives.

INFLAMMATION.

Symptoms.—First, in the part affected—redness, pain, heat, swelling, and impairment of functions; secondly, in the constitution at large—fever.

In the part affected (when visible):—*Redness*, owing to an increased quantity of blood; the redness may vary, according to the degree of activity, from bright scarlet to

dark purple: in common inflammation the redness is sometimes diffused, and gradually lost in the surrounding structures, while at other times it is abruptly circumscribed. *Pain*, varying with the seat of the inflammation: thus it is tingling in the skin; throbbing in the tissue beneath the skin; sharp and cutting in pleurisy; sore, dull, and oppressing in inflammation of the chest, stomach, or kidneys: pain is more severe generally in proportion to the unyielding character of the part,—as in bone or ligament. *Heat*, most remarkable in parts the more distant from the heart, —as in the extremities. *Swelling* is most marked in the loosest structures,—as in the lips, cheeks, etc. *Functions* are impaired, as shown by increased sensibility and tenderness, and by the alteration or arrest of secretions.

These symptoms may be either acute, *i. e.* active and rapid in their course; or chronic, *i. e.* passive and slow in progress. Inflammation is also much modified by the condition of the constitutional powers: thus it may be attended with signs of debility, constituting what is termed low inflammation; or it may be attended with signs of increased force in the circulation, indicating an opposite condition of the system.

There are certain terminations, or effects, of inflammation, which are denominated—1. *resolution*, or recovery, the inflammation entirely subsiding without leaving any alteration in the part affected; 2. *suppuration*, or the formation of *pus* or "matter;" 3. *ulceration*; 4. *mortification*. The characters of these several terminations will be found under their separate names.

Causes.—1. *Predisposing.*—Constitutional peculiarity; excessive use of intoxicating drinks; luxurious living; sedentary habits; hot climates.

2. *Exciting.*—Wounds, bruises, and other injuries; extreme heat or cold; vicissitudes of weather; animal, vegetable, or chemical poisons.

Treatment.—1. *Acute.*—Leeching; warm baths; purgatives; tartar emetic; calomel; opium (see Prescription No. 1 or 2, and *List of Medicines*). For an external inflammation, cloths dipped in cold water, or an evaporating or opiate lotion (see Prescription 59) should be constantly applied.

In the case of internal inflammations, after the above remedies have been applied, blisters, or other means of counter-irritation, may be applied if the symptoms do not entirely subside.

The diet in acute inflammation is generally required to be low.

2. *Chronic.*—The above remedies, less actively employed. Leeching is seldom necessary. Iodine and the milder preparations of mercury are useful. Either chronic or acute inflammation, occurring in debilitated states of the system, require, in addition to the use of some of the above remedies, the administration of ammonia, bark, wine, or even brandy.

The above forms an outline sketch of the general principles of the treatment of inflammation; the extent and manner of their application in the inflammation of special organs will be found under their several names.

INFLUENZA.

Epidemic Catarrhal Fever.

Symptoms.—Chilliness; shivering; headache; sneezing; hoarseness; cough; pains in the back and limbs; general depression; feverishness; loss of appetite; nausea; furred tongue; disordered bowels; dry skin; quick and feeble pulse. Influenza thus presents all the features of a severe cold, but is, in addition, marked by prostration of strength and distinct fever, and has much longer duration. Influenza is generally epidemic over large districts, whereas cold or catarrh is more dependent on individual circumstances.

Influenza is not unfrequently attended with severe inflammation of internal organs.

Causes.—Epidemic atmospheric influences.

Treatment.—Hot bath; diaphoretics (see Prescription No. 3); purgatives, if bowels are confined (see Prescriptions Nos. 27, 28), will generally suffice in the milder cases. In severer cases, or where the signs of debility and prostration are evident, stimulants, such as ammonia and bark (see Prescription No. 8), wine or brandy, every four or six hours. Mustard plasters, or turpentine fomentations, should be applied to the chest to relieve pain, cough, etc.

As influenza is generally marked by debility, the diet must be nourishing, and in many instances full and stimulating; *e. g.* wine or brandy and water every two or three hours.

INSANITY.

Symptoms.—The approach of insanity is generally indicated by a marked change in temper, disposition, manners; by restlessness and irritability of temper. The same time that these changes occur in the mind, the bodily health is observed to be failing or deranged, or they follow an attack of inflammation of the brain.

Treatment.—The bodily health has great influence over the mental state, as all people know by ordinary experience. It is therefore the first principle, in the treatment of insanity, to adopt all measures that shall tend to invigorate the frame, such as a nutritious diet, free exercise in the open air, even up to the point of bodily fatigue; but care must be taken not to depress the vital powers by excessive fatigue.

In the management of an attack of mania with violence, the safety of the patient and bystanders must be the first consideration. This must be secured by some form of restraint, such as a strait waistcoat, or straps of some kind, until sufficient attendants are available to protect themselves and others, as well as the patient from violence.

Change of scene is almost always essentially necessary, in order to remove the sufferer from associations connected with the outset, and perhaps the origin of the attack.

On a malady, which has furnished the subject of so many volumes and of so much legislation, not to say litigation, it is obviously impossible to offer in this place more than the above hints.

INSANITY, PUERPERAL.

Symptoms.—Either a few days or hours, it may be before, or more commonly after childbirth, the mother becomes somewhat strange and excited, suspicious of her friends and attendants, imagining evils and dangers to herself or child; or her affections are entirely alienated from her offspring, which, if not carefully watched, she might

injure. The patient's spirits are greatly depressed; she will cry often and long: melancholy alternating with the state of excitement characterized by incoherent volubility and irritability of temper. The pulse may be increased in rapidity; but this, as well as other bodily symptoms, may show but little indications of disease.

The symptoms may subside in the course of a few days or hours, or they may pass into furious mania or melancholy. The above constitutes the faintest outline of this affection, which presents many forms and degrees of severity. They should suffice, however, to put the attendants of a lying-in woman upon their guard in the event of the appearance of such symptoms.

Cause.—A peculiar condition of the female nervous system, arising out of childbirth.

Treatment.—Upon the first occurrence of the symptoms in a milder degree, a dose of tincture of opium should be given, and repeated at intervals of four or six hours to induce sleep (see *Table of Medicines*). An aperient draught should be given if the bowels are costive. The greatest care and vigilance are required in watching that the patient does not injure herself or offspring. When such symptoms appear, the woman ought never to be left entirely alone. If she be very violent, the arms may be pinioned down to the sides by a sheet folded broad and firmly bound round the body. This should not be had recourse to if it can safely be avoided; but where there are not sufficient or competent attendants, it is the best plan to use some restraint of this kind. By thereby preventing the patient from augmenting her excitement, she will often become quiet, and fall off into a refreshing doze.

It is scarcely necessary to observe how important it is in such a case to spare no effort to obtain medical advice.

The diet should be liberal.

INTOXICATION. *See* Table of Accidents.

ITCH.

Scabies.

Symptoms.—An eruption of small pimples, generally appearing first on the hands, between the fingers, on the

wrists, and at the bends of the joints; attended with constant itching, especially when warm in bed, after violent exercise, or any other cause which heats the skin. If the disease be neglected, or cleanliness not observed, the pimples will spread and become pustules (containing matter); scabs will be formed, and even ulceration may take place.

Causes.—Contagion. The eruption itself is caused by the burrowing of a microscopic acarus underneath the skin The propagation of this disease is much favoured by dirt.

Treatment.—Apply sulphur lotion, composed of one part of quicklime boiled with two parts of sulphur in ten parts of water for two hours, and then left to stand until the clear yellow liquid can be poured off. It is sufficient to wash the body well with warm water, and then to rub the liquid on the skin for half an hour. During the half-hour the acarus is killed, and the patient is cured. After twenty-four hours wash the surface well with soap, and use clean clothes. Diet light, but nutritious, avoiding stimulants. If, however, the pimples have been scratched, it may be necessary to dilute this lotion with water, or it will cause too much pain; or substitute sulphur ointment if the skin be much broken.

JAUNDICE.

Symptoms.—Yellowness of the eyes and skin; derangement of the stomach and bowels; motions white or clay-coloured; urine of a deep saffron colour; lassitude; languor; lowness of spirits; loss of appetite. The duration of these symptoms varies from a few days to many months. They either subside in health, or pass into some other malady,—as dropsy, coma, etc.

Causes.—Excessive secretion of, or obstruction to the passage of bile into the intestines from disorders of the liver, of some of which, indeed, it is but a symptom.

Infants are very liable to jaundice a few days after their birth, owing to changes which take place in the organs in the abdomen, and in the circulation in the liver.

Constipation often produces extreme sallowness of the complexion, closely approaching the tinge of jaundice.

Treatment.—If it proceed from excessive secretion of bile, as is most frequently the case in warm climates, and

in the remittent fevers of those climates, purgatives and medicines should be given, to promote perspiration and the flow of urine.

If there be great tenderness and pain below the right ribs, indicative of congestion or inflammatory action in the liver, leeches must be applied there; and mild mercurials, *e. g.* Grey powder, or small doses of calomel, with saline aperients, given. If these do not relieve pain, etc. entirely, a blister-plaster should be applied, or turpentine fomentations used. Low diet must be given.

Extract or decoction of dandelion is a very valuable remedy in the restoration of the functions of the liver.

In the habitual drunkard jaundice occurs as a result of permanent change in the structure of the liver. In this case more is to be done by careful dieting and by temperance than by medicines, which need not exceed simple purgatives and diuretics. Calomel in these cases can do no good, and may do much harm in non-professional hands. Pain may be relieved by blistering.

The passing of gall-stones into the bowels is often attended with jaundice. There is intensely agonizing pain, and spasms in the region of the liver. From twenty to forty drops of tincture of opium should be given; hot bath and fomentations.

KIDNEYS, CHRONIC DISEASE OR DEGENERATION OF.

Bright's Disease; Renal Dropsy.

Symptoms.—The onset of this grave disease, which so often proves fatal, is in many instances obscure and insidious. The patient experiences frequent headache, giddiness, lassitude, depression of spirits, and may even have slight paralytic seizures. The skin is dry, seldom perspiring, the complexion becomes pale and pasty. These general symptoms may last for many months, or even for several years, or the distinct and unmistakable symptoms may set in suddenly and run a rapid course of a few weeks. These are puffiness of the eyelids or face, swelling of the hands and feet, extending to the whole surface of the body; dropsy in the internal cavities. The urine, when boiled in a spoon over a flame, froths up, and becomes thick or

muddy, in consequence of the coagulation of albumen contained in it.

Causes.—Scarlet fever and typhus fever often leave behind them a morbid condition of the kidneys, which leads to this form of disease. Suppressed perspiration, abuse of alcoholic liquors, and exposure to cold, are the most frequent causes.

Treatment.—Tonics with a nutritious diet will, by assisting in improving the general health, help to retard the progress of this malady. When the dropsical symptoms have made their appearance, recourse should be had to purgatives and diuretics. This is a *most serious* disease, and in most cases fatal. Medical opinion should therefore be sought, if possible, by any means.

KIDNEYS, INFLAMMATION OF.

Symptoms.—Pain in the loins, aggravated by pressure, by sneezing or coughing, or by a sudden movement; pain extending through the abdomen, and attended with numbness down the inside of the thighs and testicles. Urine frequently voided, with great pain, high-coloured, sanguineous or dark-brown. Shivering; nausea; vomiting; bowels confined; frequent and sharp pulse; skin hot and dry; fever, varying in severity according to the acuteness of the attack. The disease will present several degrees of severity down to the chronic state; its duration will vary from a few days to many months.

If the inflammation be not subdued, the constituents of the urine become absorbed into the circulating blood, and the patient becomes poisoned thereby. The extremities lose their warmth, the pulse fails, the muscular power sinks, delirium comes on, and the patient dies in lethargy or convulsions.

Causes.—Disorders of the digestive organs; gouty or rheumatic affections; blows; injuries on the loins; too long retention of urine; improper use of irritating diuretics; gravel or concretions in the kidneys; suppressed perspiration; cold; eruptive fevers.

Treatment.—For the acute attack, caused by cold or by injury, leeches applied freely to the loins, followed by

warm fomentations or poultices; and saline mixture, purgatives, diaphoretics, warm bath, and local fomentations (see Prescription No. 2 and *List of Medicines*).

KNEE, HOUSEMAID'S.

Symptoms.—A painful swelling on the bone on the front of the knee; increased by pressure, kneeling, or walking. A slight degree of feverishness. Distinguished from inflammation of the knee-joint by the swelling being confined to the front of the knee, over the knee-cap.

Cause.—Kneeling on, or pressing the knee against, hard substances.

Treatment.—The swelling may be painted with tincture of iodine twice daily, or if this fail it should be blistered—rest of the limb should be enjoined.

KNEE, INFLAMMATION OF.

White Swelling.

Symptoms.—Pain in the joint, increased by pressure, or any movement of the limb; swelling of the joint, more distinctly perceptible above than below the knee, more especially so on the inner side of the limb.

It may be distinguished from *housemaid's knee* by the swelling not being on the front, but including the whole of the joint, and by the greater degree of pain on movement; —from *rheumatism*, by the latter generally affecting more joints than one, and by the swelling being more extensive than in rheumatism.

Causes.—Constitutional disorders predispose to it, and it may be excited by a violent blow or wound, or by exposure to cold.

Treatment.—Perfect rest, the limb being kept in a position that shall be the freest from pain; very slightly bent will generally be found the most easy. Leeches should be freely applied to the joint, and followed by warm fomentations or poulticing. Tincture of iodine should, after this, be painted on the joint, night and morning.

The preceding refers to the acute form of the disease. When the disease has lasted some months it has become

chronic, and then constitutes what is known as *white swelling*. This requires the limb to be kept more in a straight line, by the application of bandages and leather or gutta-percha splint to prevent movement of the joint. Frequently paint with tincture of iodine; at the same time give internal remedies, consisting chiefly of iodide of potassium, muriated tincture of iron, or iodide of iron (see Prescription and *List of Medicines*). The strictest attention to the general health is required.

LYING-IN ROOM, CONDUCT OF,

AND MANAGEMENT OF INFANT.

Symptoms and Management. — There are certain *preliminary* matters which deserve attention in the preparation of the lying-in chamber.

The bed should be prepared, or "guarded," by covering the right-hand side of it with a skin of leather, or piece of waterproof fabric, laying over these three or four folds of sheet.

The patient should change her dress so that she have on only her under garments and night-gown, over which, so long as she may be able to move about her room, she should wear a loose dressing-gown. The under garments should be so arranged as to be easily slipped down after the labour is ended.

The monthly nurse and one female friend should be the only persons in the room besides the patient and the attendant.

The room should be well ventilated and kept at a moderate temperature.

If the bowels be costive the patient should take a dose of castor oil, or have a clyster of warm gruel, as soon as labour begins. The last stage of the labour is often shortened thereby.

The diet, until labour is finished, should be light, unstimulating, and nourishing, varying but little from the ordinary habit.

The conversation should be cheerful—as little as possible having reference to labours, and suspended or moderated during the pains, as it is often very irritating to women at those moments.

A skein of strong brown thread, and a large pair of scissors, should be in readiness.

A plentiful supply of linen, warm and cold water, a small bath, etc. etc., should also be provided.

Should the patient feel faint after the child is born, the pillows should be removed from under the head, which should be allowed to be the lowest point of her body. (For the treatment of hæmorrhage after labour, see Hæmorrhage.) Generally, however, nothing of this kind is required. *Perfect stillness* is to be enforced for three or four hours. It is important that the patient should not be allowed suddenly to assume an upright or sitting posture. A little tea or gruel may be administered. At the end of a couple of hours a broad bandage may be fixed around the body, not tightly, but merely just so as to give a sense of some support. The soiled garments, etc., are to be removed, dry warm napkins applied, and the patient gently moved up in the bed, then left to sleep, if she can. Light nourishment, as beef-tea, gruel, sago, tea, etc., may be given from time to time.

If there be severe after-pains or nervous excitement, preventing sleep, twenty to thirty drops of laudanum, or ten grains of Dover's powder, may be administered.

A few hours after delivery the bladder should be emptied. For this purpose, however, the patient should deviate as little as possible from the horizontal posture. If the labour has been long and tedious, there may at first be some difficulty in passing water: this should be relieved by the application of warm fomentation to the lower part of the abdomen.

Daily washing the external parts with warm water should be practised. The patient should not be moved from the recumbent posture while this is being performed.

TREATMENT AFTER LABOUR.

Much harm is done to the mother's health, and often the constitution is irreparably injured, by prematurely getting up after a confinement. According to the individual strength of the patient, and the state of the weather, the patient may be allowed to leave her bed after from five to seven days. She should, however, strictly observe a re-

cumbent posture upon a couch for another week, at least, before she ventures to sit up or walk. Those whose circumstances in life compel them sooner "to be about," pay a heavy penalty for so doing. Falling of the womb is a consequence under which the life of women of the poorer classes is often rendered one of suffering and misery.

The lying-in chamber should be light and well ventilated. Darkness and closeness of the room, as too frequently met with, are highly prejudicial to the health and strength of both mother and infant. Dread of the ill effects of a draught of cold air leads to the smothering of the infant and parent among curtains, feather beds, and fires, until both are rendered tenfold more susceptible of the slightest change of temperature.

The diet of a recently-delivered woman should be light, liberal, and nourishing. Little or no good, but much harm may be done by starving women for so many days, as is usual. By this diet is meant most strictly the avoidance of any excess in the use of stimulants. If the patient have been accustomed to take malt liquors in moderation, the same may be permitted. A pint of mild beer daily is sufficient for any nursing mother. No greater mistake as to the present, or more ruinous error, can be committed, than that of assuming it to be necessary, to enable a mother to perform the office of nursing, that she should drink strong beer *ad libitum*. The milk that is secreted under such circumstances is not either so good in quality or so full in quantity as when only small quantities, or none at all, of malt liquors are taken. The two, three, and four-pints-a-day system excites a feverish condition of the constitution, and damages the characters of the secretions. It is not always easy for a woman suddenly to discontinue such a mode of dieting when she weans her child. The habit in many cases is fixed for life. This is the source of many of those melancholy instances of inveterate love of intoxicating beverages which are occasionally met with among females of all ranks of society.

If thirst be caused by suckling, it may safely and surely be allayed by freely drinking of milk, or milk and barley water, etc.; at the same time wholesome nutriment is

thereby supplied for the formation of pure and nutritious support to the infant.

Suckling is occasionally attended with trouble, more especially so with first children. When the secretion of milk begins, the breasts may be painfully swollen, and feel as if full of hard lumps or knots. When the child is put to the breast, the pain is augmented; but if it takes a full feed, relief is experienced. It very often happens that, the nipple being small, it is several days before the child will suck freely. The fulness and pain in the breasts will be relieved by gently rubbing them two or three times a day with sweet oil; by drawing off a small quantity of the milk from time to time. This is readily effected by means of a soda-water bottle, or other wide-mouthed bottle, warmed with hot water, or by being held to the fire, and then applied to the nipple, the skin around which should be protected by a piece of leather or linen. A small quantity of milk will flow into it as the bottle cools.

If this plan do not succeed, over-fulness of the breast may be prevented by suction of another infant or adult.

The first or second occasion of nursing is often attended with sore nipples. This painful affection may be prevented or relieved by regularly washing the nipples with warm water immediately after suckling, and by the use of Wansborough's metallic shields. They are to be worn in the intervals of nursing, and the nipples washed again before the infant is placed to the breast. A great many means have been recommended for the cure of sore nipples. Among these are shields and teats of various kinds. It is scarcely possible to state which may be the best of these. Sometimes one will suit, and sometimes another kind.

If the nipples be cracked and inflamed, a bread-and-water poultice may be applied at first; afterwards, any astringent application, as powdered alum, tincture of catechu, etc. Whatever is used must be washed off before the infant sucks. Time and perseverance in suckling, protecting the nipple in the intervals, are the most trustworthy remedies.

MANAGEMENT OF THE INFANT.

When the child is born, care is to be taken that it has

breathing room, and that the bed-clothes, etc. do not prevent access of air to its mouth. When the body has been expelled, it should be turned on its back. The infant will generally begin to cry immediately: should this not occur, a few slaps should be inflicted on the face, chest, etc., with a towel dipped in cold water. This will in most instances suffice to cause the child to draw in a short inspiration; it will then cry, and respiration will be fully established.

As soon as this takes place, the navel-string is to be tied and divided. This is a very simple operation, and only requires attention to the following directions:—

Take four or five threads of strong brown thread; of these make two strings, each about fifteen or sixteen inches long, tying a knot at each end. The navel-string being then taken hold of, is to be tightly tied round with one of these ligatures, at about an inch and a half or two inches from the child's abdomen. The other ligature is next to be tied about two inches nearer to the mother. The navel-string is then to be cut through with a sharp pair of scissors, between these two ligatures. If it should bleed afterwards, another ligature should be tied.

Should the child not breathe after the above-mentioned measures have been adopted, it should be placed in a warm bath, while attempts are made to inflate its lungs by breathing into its mouth, holding the nostrils to prevent the escape of the breath that way. Gentle pressure should at the same time be made upon the upper part of the windpipe (Adam's apple), to prevent the air entering the stomach instead of the lungs. The sides of the chest should then be gently depressed, so as to empty the lungs. These operations may be alternately repeated as long as the slightest pulsation can be felt in the region of the heart.

The child having been separated from its mother, is to be wrapped in a warm flannel. It should then be well washed with warm water and soap, near, not close to, a fire. The child's body is often covered with a white unctuous substance, which is sometimes difficult to remove. If the first soap-and-water washing do not remove this, the surface should be smeared with oil or lard before the second washing; this will soften the white substance, and render it more easily removable by soap and water.

When the child has been wiped dry, the remainder of the cord, or navel-string, is to be enclosed in two or three folds of soft rag, and laid upwards on the abdomen. A band of soft flannel should then be passed twice round the body, not tightly. If the navel-string should ooze at all—and this should be carefully noticed before the bandage is placed—a second ligature should be tightly tied. If, however, it should still bleed, a little plaster of Paris, if it can be procured, will stop, or treat as in bleeding from leech-bites.

In from five to ten days the navel-string separates; it should not be pulled at, as this may lead to protrusion afterwards.

Swelling or puffiness of the scalp is generally noticed after hard labours. This may be left to itself, and will disappear in a few days.

After the washing and dressing is complete, the child should be placed in bed with its mother, and its mouth put to the nipple. There may or may not be milk at first, but the child's suction accelerates the secretion, and stimulates the womb to contract, thereby diminishing the risk of hæmorrhage.

The warmth of the mother will be of service to the infant. Newly-born children do not maintain their own warmth. When thoroughly warm, the infant may be placed upon a pillow in a cot or bassinette. If no milk appear in the mother's breast after twelve hours, nothing should be given to the infant but warm milk and water; this should be repeated every two hours until the mother can afford a supply.

Castor oil, butter and sugar, etc., are often forced down the throats of infants, for no good reason whatever. The first milk that is secreted by the mother has all the aperient properties that can ordinarily be needed for the removal of the dark secretion contained in the bowels of the child at birth. There is certainly no occasion to physic a child directly it comes amongst us. If the contents of the bowels should not be evacuated for a couple of days, a teaspoonful of castor oil may be given. Accurate examination should first be made, in order to ascertain that no malformation exists to prevent the passage of the motion.

The urine sometimes is suppressed for several days after birth: nothing more than warm baths, or fomentations, need be employed in these cases, as, if no physical obstacle exist, the secretion will certainly be established at last.

The breasts of newly-born infants frequently contain a secretion of a watery or milk-like character. This is erroneously regarded as true milk by many persons. Nurses are disposed too often "to get it away," as they express it. No interference is required; but much harm may be done thereby. If the breasts should swell or inflame, warm fomentation will be sufficient treatment.

A severe form of inflammation of the eyes is apt to occur to newly-born infants, and requires prompt attention (see *Eye, Inflammation of*).

The jaundice that appears in infants a few hours or days old does not call for medicine. It is the result of natural changes taking place in the circulation of the liver, and will naturally disappear.

Children are frequently "*tongue-tied*;" that is, the cord which is below the tongue prevents its tip being bent upwards freely, so as to embrace the nipple in sucking. In this case it should be cut. This operation should be performed with a pair of sharp round-ended scissors. Care must be taken that these be directed downwards in making the incision, which need only divide the edge of the cord-like membrane. If the incision be made upwards, towards the under surface of the tongue, an artery may be wounded.

As this operation is not generally urgent, it may probably be postponed until surgical aid can be obtained.

LARYNX, INFLAMMATION OF.

Laryngeal Angina; Laryngitis.

Symptoms.—1. *Acute.* A dull pain, or soreness, is felt in the upper part of the throat, with tenderness on pressure upon "Adam's Apple," or the prominent portion of the larynx, to be felt on the front of the throat. The voice is hoarse, harsh, or sharp, with frequent short harsh cough, unattended by expectoration. There is difficulty in swallowing, especially of liquids. Fever, hot skin, rapid pulse, great thirst, etc.

As the disease advances rapidly, the voice soon becomes a mere whisper, or is entirely inaudible; the cough becomes more harsh and distressing, being attended with spasm and augmented difficulty of breathing, threatening suffocation. If relief be not obtained speedily, the patient will die from the impediment to respiration.

2. *Chronic.*—This usually begins with the symptoms of a cold, attended with hoarseness and a dry cough; the voice being altered in its ordinary tone, may become whispering. There is seldom the difficulty in swallowing that is experienced in the acute form.

Causes.—Exposure to cold and wet; swallowing too hot or irritating liquids; extension of inflammation from the throat or chest. The chronic form is usually connected with constitutional disease, such as consumption or syphilis.

Treatment.—Not a moment is to be lost in the treatment of this (happily not common) dangerous malady. The acute form must be immediately treated by leeching the throat (twenty leeches for a strong adult), and the administration of an emetic (see Prescription No. 25), followed by the use of repeated doses of tartar emetic or calomel (see Prescription No. 2 or 46). A hot-bath should be used as soon as possible, and prolonged to faintness.

In the case of children under seven or eight years of age, from two to six leeches should be applied on the bone of the chest, so that pressure can be made to stop the bleeding. Calomel must be given with ipecacuanha (see *Table of Medicines*). Hot-bath should also be used.

After the first and most urgent symptoms have subsided, a blister plaster should be applied on the throat, and smaller doses of calomel and tartar emetic continued at intervals, gradually lengthening until the symptoms have ceased, or the mouth has become affected by the mercury.

Chronic laryngitis is to be treated by the external use of tincture of iodine, tartar emetic ointment, or other counter-irritants; and by the internal administration of iodide of potassium or iron, or other tonics, according to the condition with which it may be associated.

Life is sometimes saved, in extremity, by the operation of opening the windpipe (tracheotomy), but this can only be done by a surgeon.

LEPROSY.

Lepra; Fish-skin; Dry Tetter; Dandruff.

Symptoms.—An eruption, on various parts of the body, of raised circular patches covered with white scales of the cuticle or outer skin. These patches are surrounded by a reddish ring. The patches are generally of a ring-like form, the centre being apparently healthy skin. The patches begin in the form of small smooth spots, and often enlarge to the size of a half-crown. When the scales are rubbed off they leave a dull red surface, on which the scales are speedily reproduced.

There are several varieties of leprosy, in which the above characters are modified.

Causes.—Constitutional debility; hereditary predisposition; exposure to cold; deficiency of food; intemperance; disorders of the digestive organs; venereal disease.

Treatment.—Internal remedies for the general debility, *e.g.* sarsaparilla, iodide of potassium, solution of potash, etc. (see Prescriptions and *List of Medicines*).

Bichloride of mercury, in very small doses, is often of great service. Its utility is sometimes increased by combination with arsenic, but this should not be attempted except under medical supervision.

External remedies—sea-bathing; alkaline lotions (see Prescriptions Nos. 53, 54, 55, 56); creasote lotions (see Prescription No. 58); zinc ointment; white precipitate ointment, etc.

LICHEN.

Red Gum; Gown; Tooth Rash; Prickly Heat.

Symptoms.—Numerous small elevations of the skin, or pimples, with inflamed bases, seldom containing fluid of any kind; their colour often differing but little from the surrounding skin. It is frequently attended with intense itching and tingling. The pimples are sometimes so minute that they give the skin a feeling merely of roughness.

There may be considerable fever. "Prickly heat," an eruption of a salutary character, to which Europeans are subject on first arriving in tropical climates, is a form of lichen.

Causes.—Irritation of the stomach or bowels, or of teething; want of cleanliness; delicacy of skin; hot climates; hot or stimulating drinks.

Treatment.—The red gum of new-born infants rarely requires medicine. Other forms of this class of eruption in children require gum-lancing, alteratives, and aperients. The tingling of the eruption may be allayed by application of vinegar and water, Goulard lotion, etc. Where the patient is aged and appears debilitated, apply externally a solution of nitrate of silver (two grains to the ounce), or creasote (see Prescription No. 58). Zinc ointment, glycerine, starch powder, warm gruel, are milder external remedies.

LIVER, DISORDERS OF. *See* Biliary Derangements.

LOCK-JAW. *See* Tetanus.

LUMBAGO. *See* Rheumatism.

LUNGS, INFLAMMATION OF.

Pneumonia.

Symptoms.—Pain and sense of tightness in the chest; oppressed and rapid breathing; inability to take a deep breath; the patient preferring to lie on one side. Cough at first attended with scanty expectoration, tinged of an iron-rust colour, or mixed with blood,—afterwards becoming more frequent, and the expectoration more copious. There is a high degree of fever; a pungent heat of the skin; rapid sharp, sometimes feeble, pulse; a furred tongue; costive bowels; scanty and high-coloured urine. In some cases there is a great degree of prostration.

Inflammation of the lungs is very frequently conjoined with pleurisy, in which case the pain in respiration is still more sharp and cutting. Pleurisy, when alone, may be *distinguished* from pneumonia by the pain being more acute, and by the absence of cough and expectoration.

In bronchitis the cough is more frequent, and the expectoration is freer; is not rust-coloured or tinged with blood; the fever is less severe, and there is not the pungent heat of skin observed in pneumonia.

Causes.—A consumptive tendency, debility, and fevers, are among the circumstances which predispose to pneumonia; it may be excited by exposure to cold, by the inhalation of acrid vapours or irritating particles; it may follow on hooping-cough, bronchitis, or pleurisy.

Treatment.—In the active form, met with in strong and otherwise healthy individuals, calomel and opium, and tartar emetic should be given (see Prescription No. 46). Apply a blister plaster to that part of the chest where the pain is most severe. When the symptoms begin to yield, the action of the skin must be kept up by James's powder, and other diaphoretics (see *List of Medicines*), warm bath, etc. The free action of the bowels should be promoted by purgatives. In the recovery from the acute form the diet should be light and nutritious, and great care should be taken to avoid exposure to night air, to cold and damp for a long time, as inflammation of the lungs may lay the foundation of consumption.

In debilitated constitutions leeching should be omitted, and calomel and opium should be cautiously given at rather long intervals, *e.g.* once in twelve hours; and it will at the same time be necessary to support the vital power by wine, strong beef-tea, etc.

It will be requisite to have recourse to a tonic and stimulant treatment in cases of pneumonia that have been originally of the most active character, but in which the disease has passed into the state of suppuration, as indicated by the subsidence of the acute symptoms, and by profuse thick yellow expectoration.

Inflammation of the lungs sometimes (happily very rarely) passes into mortification or grangrene. This may be known by the extremely offensive odour of the breath and matter expectorated, as well as by the supervention of the signs of debility and prostration. In this case ammonia, bark, wine, brandy, etc., may be freely given, but the case is almost hopeless.

MEASLES.

Symptoms.—Redness and watering of the eyes; sneezing and running at the nose; and a feverish state, lasting from two to four days, followed by the appearance on the forehead and neck of a red rash, consisting of numerous

points, occurring in patches, sometimes taking the form of a half-moon, and extending by the fifth day all over the body. This rash remains for four days, and then declines with the fever. It is generally attended by a loose frequent cough.

As the disease declines, the rash disappears in the same order as it appeared. On or about the sixth day it begins to fade from the face, on the seventh day from the body and limbs, on the eighth day from the hands. A yellowish discoloration of the skin remains for a few days, and disappears gradually.

This is the ordinary form of measles, but many variations are met with.

Measles are often complicated with, or followed by, inflammation of the lungs, the bowels, eyes, mouth, glands, etc.

Cause. — Contagion or infection. The period which elapses between the receipt of infection and the appearance of the symptoms, varies from seven to fourteen days.

Treatment.—In mild cases no medicines are required beyond a slight aperient, if the bowels be confined. The patient should be kept in bed in a well-ventilated chamber, at a moderate temperature, and protected from draughts of cold air, so that the rash shall not be suppressed. Too high a temperature of the room, or too much clothing, only serves to increase the fever. The diet should be light and farinaceous.

If the fever and cough be considerable, give Prescriptions Nos. 15 or 17; or for an adult, No. 2 or 3.

If the cough and general symptoms be still more severe, and indicate inflammatory action within the chest, apply mustard plasters, turpentine fomentation, etc., and refer to treatment of *Bronchitis*.

If the skin tingle much, or be hot and dry, it may be sponged over with warm vinegar and water.

If the eyes be much inflamed, lotions of sulphate of zinc should be used, and the room be kept darkened.

If in the course of the disease the eruption should disappear suddenly or become dusky or purplish, the patient should be put into a hot bath, with some mustard mixed in the water; and wine, or doses of sal-volatile, given.

Caution is to be observed not to give too much stimulant, as it might give rise to inflammation of an internal organ.

MENSTRUATION, IRREGULARITIES OF.

The management of a girl at the age of puberty requires care and judgment. All undue mental excitement, or bodily fatigue, should be avoided. Exposure to cold should be guarded against. Strong purgative or other powerful medicines should not be given. The symptoms above-mentioned should be treated by mild aperients, light tonics (see Prescriptions and *Table of Medicines*), and nutritious and unstimulating diet: prolonged sleep in warm feather-beds should be prohibited. Regular moderate daily exercise should be taken.

Girls approaching the age of puberty should always be informed of the fact by their mothers or female friends, as the alarm which would be caused by the sudden and unlooked-for occurrence of menstruation might be followed by serious injury to the health.

The discharge having occurred, may be suspended and be absent for many months. The health fails, then the countenance begins to be pale, the signs of debility are evident,—the bowels are disordered, headache, feverishness, etc.; and the condition known as "green sickness" often follows. In this state vomiting or spitting of blood sometimes takes place. The long continuance of this derangement may lead to serious internal disease, *e. g.* epilepsy, hysteria, consumption, affections of the brain, unless relieved by some vicarious discharge, as diarrhœa, vomiting of blood, etc.

Besides those more numerous cases in which, as above described, a feeble condition is present, there are instances in which absence or suppression of menstruation exists with fulness of habit and apparently greater strength.

Menstruation is suspended when pregnancy occurs; the symptoms are then very different.

Causes.—Indolence; luxurious living; sleeping in overcrowded rooms; excessive mental or bodily labour at the age of puberty, with insufficient exercise in the open air; exposure to cold while menstruating.

Treatment.—Purgatives and tonics (see Prescriptions and *List of Medicines*: light nutritious diet; exercise; hip-baths; avoidance of the most obvious causes. In females of full habit, more active purgatives and lower diet are required. Guaiacum is a valuable purgative in these cases, *e. g.* powdered guaiacum, sulphur, carbonate of magnesia, equal parts, a teaspoonful twice or thrice daily.

If the suppression have lasted a long time, the occurrences above referred to—vomiting of blood—may happen. In treating these, the suppression of the menses must be kept in view, as it renders the symptom less serious. Hæmorrhage of this character should not be suddenly checked, but should be moderated by the use of purgatives and all those means that are calculated to restore menstruation.

MENSTRUATION, PAINFUL OR DIFFICULT.

Symptoms.—About the approach of the menstrual period there is a sense of weight at the lower part of the body, and severe neuralgic pains are felt in the abdomen, breasts, or back, with headache. The discharge is scanty, and does not bring relief, but, on the contrary, the pain becomes agonizing, so that the sufferer lies on the bed or ground, and even shrieks with pain. After a few hours, or a day or two at most, the pain subsides, and the discharge flows more freely, frequently accompanied with shreds of lymph. The expulsion of these is often attended with forcing pains, like those of labour.

Causes.—The hysterical temperament; inflammatory habit; exposure to cold.

Treatment.—In the feeble, nervous, and hysterical patient, warm hip-baths, opiates, or henbane, or other antispasmodics (see *List of Medicines*); aperients, with light diet. Hot spirits-and-water, as commonly given at these times, are highly objectionable, since they very often aggravate the malady, although they may render the patient less sensible of the pain; besides that, their repeated use on these occasions sometimes lays the foundation of habits of intemperance.

In full habits of body, purgatives should be freely given.

Moderate doses of sedatives and narcotics, as henbane or opium, may also be given. In most cases great relief is experienced from a quarter of a grain of ipecacuanha powder, taken every quarter of an hour in a wineglass of warm water.

For a few days before the period, a lower diet should be observed, and a gentle aperient taken. In the intervals, cold shower-baths, tonics, and other means to improve the general health.

MENSTRUATION, EXCESSIVE.

Symptoms.—The periods returning at short intervals, and the discharge too profuse, and lasting too long. The usual duration of the period is four or five days; the quantity of blood lost is, on an average, about five ounces. Much more than this is excessive. The blood is sometimes discharged in gushes, and mixed with clots, so that if it occur in married women it is not always easy to distinguish it from early miscarriage. In the intervals a discharge of whites is constant. The patient becomes debilitated and pale, suffering from headache, faintness, feebleness of pulse, palpitation, ringing in the ears, disorders of the stomach and bowels, nervous affections, swelling of the feet and legs; pain, and sense of weight or bearing down in the region of the womb.

Causes.—Hæmorrhagic tendency; the period of the cessation of menstruation; debilitated constitution; irritating violent purgatives; unusual bodily exertions; mental or moral excitement; indolent and luxurious habits of life.

Treatment.—Absolute rest; lying on a mattress or cool couch; taking all food and beverages cold; application of cloths dipped in cold water to the lower part of the body; saline aperients, with mineral acids (see Prescriptions Nos. 4, 12, 13). If these do not suffice to moderate the discharge, acetate of lead or sulphate of zinc should be given (see Prescription No. 11 or 48).

In the intervals, steel and other tonics and aperients, together with a liberal diet, should be taken.

MENSTRUATION, CESSATION OF.

Symptoms.—At or about the age of forty-five years,

the function of menstruation and the period of child-bearing terminate. In most women the cessation is preceded by some irregularity in its recurrence, and by no other derangement of the health. In some, however, this irregularity is accompanied by headache, giddiness, palpitation of the heart, pains in the uterine region, and disorders of other internal organs. The appetite becomes capricious, the strength fails, the spirits flag, and the general health often appears to be seriously giving way. It may be that these symptoms will, as they most frequently do, gradually disappear, or they may be the precursors of permanent indisposition.

Treatment.—As the disorders attending the change that the female system undergoes at this period are very varied, and often indefinite, general rules only can here be laid down, the application of which to individual cases is not very difficult.

It is, in the first place, essential to ensure free action of the bowels, for which purpose some mild purgative should frequently be taken. Symptoms of congestion of the brain —such as severe heavy pain in the head, giddiness, etc. —may call for the application of from three to six leeches. It must be borne in mind, at the same time, that headache and giddiness may attend a debilitated state of health. If, then, the pulse be feeble, the countenance pale, and there be faintness, palpitation, etc., it will be well to abstain from leeching, or too frequent purging, and to administer saline tonics, stimulants, etc. (see Prescriptions). In the latter cases the diet should be fuller than in the former, in which it should be diminished relatively to the ordinary habits. Change of air, change of scene, and all such occupation of the mind as shall invigorate the bodily health and divert the patient from dwelling upon her bodily ailments, should be had recourse to, if practicable.

MESENTERIC DISEASE.

Tabes; Marasmus; Infantile Atrophy; Mesenteric Decline; Mesenteric Fever.

Symptoms.—Languor; debility; disorders of the stomach and bowels; offensive stools; flatulence; loss of flesh; shrunk features; hectic fever; diarrhœa; feeble

pulse; furred or red tongue; capricious appetite; offensive breath. The most marked symptom with all these is the disproportionate largeness of the abdomen, which contrasts strikingly with the otherwise emaciated body and limbs.

As the disease advances, the features become wrinkled, as in old age; the bowels still more disordered; the stools white, or deprived of bile. The disproportion between the belly and the limbs becomes still greater; the frame becomes exhausted; delirium and convulsions may close the scene. The duration is very uncertain.

Causes.—Scrofulous predisposition; the age of infancy or childhood; insufficient diet; unwholesome air; fevers; improper use of purgative medicines.

Treatment.—In this essentially chronic disease much is to be done by attention to dieting, and care to support the powers of the system by pure air and good nutritious food, avoiding juicy fruits and watery vegetables. The medicines which will be found useful are mild alkaline aperients, to remove bad secretions from the alimentary canal. Tonics, such as steel, gentian, quinine, iodide of iron, cod-liver oil, etc. (see *Table of Medicines* and Prescriptions). Flatulence and pains in the abdomen may be relieved by frictions with stimulating liniment.

The surface of the body should be covered with flannel; daily bathing in fresh or sea-water, followed by brisk rubbing with a rough towel.

MILK FEVER. *See* Childbed Fevers.

MISCARRIAGE.

Abortion.

Symptoms.—Pains in the lower part of the abdomen, in the loins and hips, occurring most frequently at about the second or third monthly period after suppression has occurred. These are premonitory or threatening symptoms. They may pass off as such, or they may be followed by a discharge of blood, either in considerable quantities, or sometimes not exceeding the flow in ordinary menstruation. From the latter it may be distinguished by the character of the pain, which is expulsive and bearing down, and by the colour of the discharge, which is bright.

The absolute occurrence of abortion can only be determined by the discovery of the conception (the ovum) : it is, therefore, a point of importance, where miscarriage is suspected, not to throw away the discharges without careful examination.

At the earliest stages of its existence, the ovum is a small colourless bladder, about the size of a hazel-nut or walnut, containing a transparent fluid. At later periods the ovum being larger, is not so easily overlooked, unless it has been ruptured; but even then the partially-developed child will be discoverable.

Causes.—Falls; blows; shocks; mental emotion; immoderate exercise; over-exertion or excessive fatigue of any kind; violent purgatives and medicines given to produce this effect, which often, by their severe action, cause inflammation of the bowels, and the death of the mother. Habit: —*i. e.* when once a woman has miscarried, she is prone to do so again at the same period of pregnancy.

Treatment.—Attention to the general health, and the observance of all means for strengthening the system, will tend to prevent this accident. Particular care to be taken as the period approaches at which this occurrence may be anticipated. At this time it is advisable that the patient should sleep alone, and upon a mattress. Gentle exercise; rest on a sofa as much as possible.

For the symptoms of threatened miscarriage, the patient should go to bed (if on a mattress so much the better), the room should be freely ventilated and kept cool, the diet should be light and unstimulating. From fifteen to twenty drops of laudanum, according to the severity of the pain, may be given, and repeated, if required, in three or four hours. A dose of castor-oil, or Epsom salts, should be taken in six or eight hours afterwards.

If these precautions have not been taken, or have not availed, the patient should be laid on a bed, lightly covered, the room kept cool, and the hæmorrhage checked by the application of napkins dipped in cold water to the lower part of the body. The profuse discharge which takes place may sometimes be checked by plugging with a cambric handkerchief, or piece of sponge dipped in cold water. A pill should be given every six hours (see Prescription

No. 48). If the ovum has been expelled, the discharge will soon cease.

After miscarriage has happened, the patient should for a few days be as strictly careful as after labour. The large quantity of blood that is often lost on these occasions leaves a woman extremely enfeebled. The womb is still enlarged and heavy; rest in bed is therefore essentially necessary for a week or a fortnight. A light nutritious diet, with tonic medicines (see Prescriptions or *List of Medicines*).

MOLES.

Nævus; Mothers' Marks.

Description.—These may be a mere speck or patch, or they may cover a considerable surface, without extending deeply into the skin. Another form consists of a soft raised swelling, of a dull or bright red colour: this variety extends more deeply into the skin, and occupies a smaller extent of surface. By pressure of the finger it becomes pale, but rapidly resumes its colour when the pressure is removed. These tumours sometimes enlarge very rapidly. Many of these marks and tumours disappear of themselves. This is particularly the case with the slight marks seen on children's faces at birth. Those small dark hairy spots which are seen on the surface of the body, and which are more commonly known as moles, rarely undergo any change of form or character.

Causes.—Enlargement of the vessels of the skin. To what exciting causes they are owing cannot be stated; they have popularly been attributed to the influence of mental emotions of the mother during pregnancy. There is, however, no ground for this opinion.

Treatment.—The only form which admits of surgical treatment is the soft raised tumour; and as this sometimes, like the other varieties, disappears of itself, it is only when it is clearly seen to be increasing in size that interference is called for. If it occur in a child not previously vaccinated, the operation may be performed upon the mole, and the inflammation which follows will probably obliterate its structure. Another means is the application of caustic potash, or strong nitric acid; great care being taken that these substances do not spread to the surrounding skin,

which may be protected by a piece of sticking-plaster having a hole cut to the shape and size of the mole. Tartar-emetic ointment rubbed on daily will also excite sufficient inflammation to destroy its structure.

MORTIFICATION.

Gangrene; Sloughing; Frost-Bite.

Symptoms.—Death of any part or organ, indicated—1st, by change of colour from the redness of inflammation, or the natural hue, to livid, violet, purple, and black; 2nd, by falling of the temperature of the part; 3rd, by the subsidence of pain in the part itself, while it is augmented in the surrounding structures; lastly, the part loses its consistence, becomes soft, and blisters form containing fluid of a dark colour and offensive odour.

These are the principal characters of mortification of external parts. When it takes place in the internal organs, its existence can only be inferred from the rapid and total cessation of the signs of inflammation, with symptoms of increasing prostration or sinking; viz. feeble pulse, cold skin, delirium, stupor.

When external mortification is complete, a line of demarcation will be established between it and the sound parts in those cases where there is sufficient constitutional vigour to cast off the dead portion. Ulceration will take place on the surface, and the mortified portion will be gradually, as it were, amputated. In this manner a whole limb may be cast off, or an extensive portion of skin; or, by dividing large vessels, it may cause fatal hæmorrhage.

Causes.—Intense inflammation in debilitated or unhealthy constitutions; depression of vital energy, as in scurvy, typhus fevers, etc.; obstruction to the circulation in a part or organ, as in rupture or inflammation of the large vessels of a limb, or under certain changes which take place in the arteries of persons advanced in years; from external injuries, as bruises, spent balls, powerful chemical agents; extremes of heat or cold; some poisonous substances, as spurred rye (ergot), or the poison of venomous reptiles; impure air, as in over-crowded hospitals, producing 'hospital gangrene.'

Treatment.—Support the constitutional powers by

strong animal broth, wine, brandy, tincture of bark, ammonia, or ether (see Prescription No. 8, 9, 31, or 32). Give opium enough to allay pain. The extent to which stimulants are to be given may be guided by the state of the pulse, the strength of which is to be brought up to, and maintained as nearly as possible at, the natural standard.

External applications are required to restore and maintain the tone of surrounding parts; to procure separation of dead parts; and to prevent surrounding parts from being contaminated by the results of decomposition in the mortified portion.

These objects may be attained by the free use of rags dipped in solution of chloride of soda or lime; or creasote and water; or turpentine and water (see Prescription No. 56 or 58).

The air should at the same time be as frequently as possible purified by ventilation, the use of chlorine, etc.

MOUTH, INFLAMMATION OF.

Symptoms.—The gums and insides of the cheeks, and the tongue, red, dry, heated, and swollen; numerous superficial, or deeper sores, covered either with whitish membrane-like substance, or with a yellow coating. The breath is offensive; movement of the tongue or mouth attended with more or less pain, and often bleeding.

Causes.—Impure or sewage air; improper diet; disorders of the digestive organs.

Treatment.—Locally, apply borax and honey; chlorate of potash lotion; or diluted muriatic acid (see *Table of Medicines*) with equal parts of honey and water; or powdered alum; or powdered gum. Internally, mild alteratives and alkalies, and chlorate of potash (see *List of Medicines*). After a time, tonics, *e.g.* sulphate of zinc (see Prescription No. 11). This is often a troublesome chronic affection, to which children are prone. Pure air, and simple nutritious diet, are of the first importance in the treatment.

MUMPS.

Symptoms.—Painful swelling of the glands below the ears and under the lower jaw. Sometimes on one side only, but usually on both sides. The swelling extends to

the cheeks, causing complete alteration of the features, and disfigurement of the countenance. The swelling continues until the fourth or fifth day, when it declines. There is sometimes considerable difficulty in swallowing, in consequence of the pain occasioned by every movement of the jaws. There is often febrile disturbance. As the disease declines, it sometimes happens that pain and swelling occur in the breasts of females and in the testicles of male children, but this is of rare occurrence.

Cause.—Infection.

Treatment.—Light diet; salines and mild aperients; warm fomentations to the swellings. In the majority of cases no medicine at all is required.

NAVEL, PROTRUSION OF.

Occurring soon after birth, requires a soft pad, fixed to an elastic webbing-band, to be continually worn, or a small piece of ivory or cork, cut as a half-sphere, and bound down with soap plaster.

NECROSIS. *See* BONES, CHRONIC INFLAMMATION OF.

NERVOUSNESS.

Symptoms.—Susceptibility to external influences; irritability of temper; dread of imaginary evils, allied to hypochondriasis; exaggeration of slight pains; disturbed sleep.

Causes.—General debility; hysterical constitution; mental anxiety; insufficient air and exercise.

Treatment.—Tonics; liberal diet, exercise in pure air; mental occupation, and rational recreation.

NETTLE-RASH.

Symptoms.—Whitish or reddish elevations upon the skin, having the appearance of wheals, as if produced by the lash of a whip or cane; tingling, itching, and burning sensation, like that which is caused by the sting of a nettle; more or less feverishness. The eruption appears suddenly, and disappears as suddenly, without any definite order or duration, except that it is prone to return at about the same hour daily.

Causes.—Disorders of the stomach and bowels; teeth-

ing; mental excitement; exposure to cold. Certain articles in food will, in peculiar constitutions, produce nettle-rash; among these are shellfish, and some fruits and vegetables. General debility.

Treatment.—Alkaline aperients; light and cooling diet; sponging with tepid water or vinegar and water. If it has been caused by articles of food, an emetic should be taken, and afterwards purgatives.

Where it occurs in debilitated states, or has become chronic, tonics must be given, together with a full diet (see Prescriptions and *List of Medicines*).

NEURALGIA.

Nerve-ache; Tic Douloureux; Brow Ague.

Symptoms.—Paroxysms of pain of a plunging, darting, agonizing character, occurring in various parts of the body. Its most common seat is the head or face, but it may occur in the limbs or various parts of the trunk of the body; in females, we very frequently meet with neuralgic pain in the left side; we meet also with neuralgia of the nerves of the teeth, or toothache, independently of inflammation of the tooth; but the most severe of all forms of this affection is *tic douloureux*, or *brow ague*.

The neuralgic character of the attack may be known by the extreme severity of the pain, its occurrence at uncertain intervals, or its recurrence periodically; and by the absence of fever, or other indications of inflammation.

Causes.—Nervous, hysterical, hypochondriacal, rheumatic, or gouty predisposition; debility; mental anxiety; dyspepsia; malaria; exposure to cold and damp; local injuries.

Treatment.—Of the milder forms, mustard plasters, tincture of iodine, applied externally on the part affected. Internally, purgatives; narcotics, as opium; antispasmodics, as camphor, valerian, assafœtida.

In the more severe form of *tic*, a blister plaster may be applied over the part affected; or fomentations of hot water, with laudanum; tincture of aconite or belladonna liniment may be applied *externally*; at the same time opium may be given internally, according to the severity

and obstinacy of the attack, in doses of twenty to thirty drops of laudanum; or one grain of opium repeated every two or three hours until the pain subsides. After the subsidence of the attack, tonic medicines must be given to improve the state of the general health, having in view the cause upon which it is supposed to depend.

NODES. *See* PERIOSTEUM, INFLAMMATION OF.

OBESITY.

Corpulence; Morbid Fatness.

Symptoms.—Excessive general or partial accumulation of fat, most frequently accompanied by a feeble state of health.

Causes.—Hereditary predisposition; mental and bodily indolence; luxurious living; sedentary occupations; too much sleep; indulgence in malt liquors.

Treatment.—Avoidance, as much as possible, of the above causes.

Fifteen or twenty drops of solution of potash taken three times a day in a wineglass of water for several weeks, will sometimes diminish obesity. Fat should be avoided in articles of diet, as should also sugar, and all articles that can be converted into sugar in the stomach.

The diet should consist of meat and as little bread as possible, with succulent and other than starchy vegetables. Sherry wine or brandy-and-water at meals is preferable to malt liquors.

PALPITATION. *See* HEART, FUNCTIONAL DISORDERS OF.

PARALYSIS.

Palsy.

Symptoms.—Loss or diminution of the power of motion, or of sensation in one or more parts of the body. Paralysis varies in extent: *e. g.* it is divided into—

Hemiplegia, when one side, or a vertical half of the body, is paralysed.

Paraplegia, when the lower half of the body is affected.

Local, when only a small part of the frame is paralysed.

The symptoms of paralysis may be found in loss of either of the five senses, as well as loss of sensation on the entire surface of the body, or of the power of motion. Either of these endowments may be *completely* or *incompletely* paralysed. When the muscles of the face are paralysed, the features are much distorted by being drawn to the sound side, owing to the preponderating force of its muscles. Thus one eye may remain partially closed, the cheeks motionless, and puffing out with each act of breathing; speech indistinct, mastication incomplete, the food lodging between the cheek and the teeth; the tongue, when protruded, directed to the sound side.

Palsy of a limb is known by its dragging or awkward movements. In some instances, as in children, the palsy may be limited to one set of muscles,—those, for instance, which bend a limb; while those which extend or stretch it out may be sound: this being the state at birth, is the cause of some forms of lameness known as *club-foot*.

Involuntary evacuation of the contents of the bowels or bladder results from paralysis of the muscles controlling these outlets.

The occurrence of palsy is often sudden, but more frequently it is preceded by numbness, tingling, etc., in the limb or part, its action being gradually impaired. Its duration is uncertain, sometimes passing off speedily, in other instances remaining many years, as in *shaking palsy*, which is an imperfect form of the disease, somewhat resembling St. Vitus's dance.

Causes.—Palsy follows as well as precedes attacks of apoplexy; it is also caused by tumours of the brain; by injuries to the head; by concussion of the brain, or spine, produced by falls; by disease of the spinal cord; by hysteria, in which case it is generally only temporary; by mineral poisons, as lead, mercury, etc.; by the suppression of natural discharges; the action of extreme cold; intemperance; mental emotions.

Treatment.—In its early stages, if the attack be sudden, and there be a full pulse and robust habit of body, active purging, etc., may be had recourse to, together with low diet, followed by the continued use of three-grain doses of

blue pill twice a day, for a few days, taking care to watch that salivation does not take place: this may be known by the gums becoming inflamed at their edges, by the teeth aching, and by an increased flow of saliva.

If the patient be of a spare or enfeebled habit of body, external irritants, such as blisters, croton oil, or tartar-emetic ointment, should be applied to the nape of the neck, or along the course of the spine, until an eruption appears on the skin. Friction of the paralysed part is also of service. Internally, tonics should be given, taking care that the bowels are not confined. Cod-liver oil, if there be wasting of a limb or part of the body.

The same plan should be followed when the approach of the paralysis is very gradual, or when it has lasted a long time. Electricity and galvanism are sometimes useful in *chronic* paralysis. Diet liberal.

In children, small doses of iodide of potassium may be given; cold sea-bathing and friction of the limbs being employed.

PERIOSTEUM, INFLAMMATION OF.

Symptoms.—Pain resembling that described in inflammation of the bones. It is most commonly felt, together with tenderness to touch, on the front of the leg, along the arms, on the collar-bones, or beneath the scalp.

Causes.—Rheumatism; blows; scrofula in children.

Treatment.—The same as inflammation of bone.

PERITONEUM, INFLAMMATION OF. *See* Bowels, Inflammation of; also Childbed Fevers.

PILES.

Hæmorrhoids.

Symptoms.—Painful swellings in the fundament, attended with heat, tension, and other uneasy sensations. Sometimes attended with discharge of blood when at stool. Irritability of the bladder. Pain on walking or sitting.

Distinctive symptoms.—Piles may be mistaken for hæmorrhage from the bowels, higher up in their course, and of a different character (see *Bowels, Bleeding from*). The error may be corrected by observing the character and con-

dition of the blood. If it be fluid, and of a bright or florid colour, and be unmixed with the contents of the bowels, it may be inferred that it has flowed from piles; if, however, it be clotted, and of black colour, mixed with the motions, it has proceeded from a source beyond the seat of piles,—the vessels just within the *anus*. Piles may be entirely within the bowel, or they may be protruded, and remain externally.

Causes.—Sedentary occupation; luxurious modes of living; constipation, or whatever else causes obstruction to the circulation in the liver; irritation of the lower bowels by frequent use of strong purgative medicines; the state of pregnancy.

Treatment.—To relieve severity of the pain, use fomentation, warm or cold, as may be the more agreeable; or injection of water; or apply three or four leeches. Some mild, unirritating ointment, as spermaceti or fresh lard, will prevent pain and irritation of pressure in walking and sitting.

The causes must be removed by attention to diet, and by keeping the bowels relaxed, so that the vessels at the lower end of the intestines shall not become loaded. Confection of senna, castor oil, and alteratives. Taking care that the bowels act the last thing at night, instead of in the morning, will often be found useful.

If the piles be of long standing, external, small, and grape-like, a ligature may be tightly tied around their necks, and they will then, in the course of a day or two, drop off strangulated and sloughed. This, however, should not be attempted if medical advice be within reach, or is likely to be so within a reasonable time.

PLAGUE.

Symptoms.—Fever, with delirium; convulsive startings of the limbs; depression; drowsiness; noises in the ears; dry tongue; faintness; pulse rapid, feeble, or irregular; thirst; pain in the stomach; nausea or vomiting; offensive stools; sudden prostration; skin hot; countenance pale; surface of the body presenting dark purple or livid spots; glandular swellings and carbuncles forming in different parts, and under the arm-pits or in the groins, occurring on the

second or third day; hiccup, cold clammy sweat, and other signs of sinking, rapidly appear.

If the disease be prolonged to the sixth day, it frequently ends in recovery, by the critical breaking out of a warm perspiration.

Causes.—Local or atmospheric sources of infection and contagion.

Treatment.—Free access of fresh air; cleanliness; emetics, diaphoretics, stimulants, tonics; fomentations and poultices to the boils, etc. Diet should be nourishing and stimulating.

PLEURISY.

Inflammation in the Chest; Inflammatory Stitch in the Side.

Symptoms.—Acute cutting pain on one or both sides of the chest, increased by breathing deeply, by coughing, or by sneezing. Attended by fever, rapid and sharp pulse, a short dry cough, and quickened breathing. These symptoms may subside under treatment; or, continuing with more or less severity, breathing may become more and more hurried and oppressed, until it is impossible to lie down, except on the inflamed side of the chest. The latter signs will indicate that fluid has been effused between the sides of the chest and the lungs.

These symptoms vary very greatly as to severity and duration.

Causes.—Consumptive tendency; cold; inflammation of the lungs; local injuries, such as fractures of the ribs.

Treatment.—From five to twenty or thirty leeches, according to age and strength; after they have left off bleeding, a large blister to be applied over the most painful part. In debilitated states, the blister may be applied without the leeching. Dover's powder, with the saline mixture No. 2, should be given. If the above means prove insufficient the case may be treated as *Inflammation of the Lungs*.

Pleurisy, when it has become chronic, or has produced effusion, should be treated with external irritants, and the internal use of quinine and other tonics.

PREGNANCY, MANAGEMENT OF.

Management.—This, in most women, consists merely in a little more than usual care of the health, avoiding violent exertions, or great mental excitement; attention to the condition of the bowels; regular exercise in the open air, bathing, sponging, etc., should be continued, if the previous custom. The mode of living should not differ from that which tends to preserve health at any other time. It is a great mistake to suppose that a woman, when pregnant, requires a large additional supply of food. The overfeeding that is sanctioned under this notion is the abundant source of indigestion, and many other ailments that are suffered during pregnancy. True as is this statement, with regard to over-feeding, it has far greater force when applied to the frequent use of stimulants so constantly and so wrongly recommended to pregnant women. Brandy-and-water, wine, sal-volatile, are, in the estimation of some persons, sovereign remedies for a host of evils. The excuse for their being taken is often but a temporary inconvenience. This inconvenience perhaps might have been avoided by care or self-denial, while the evil that ensues is not only present, but future. The supposed necessity for stimulants engenders the habit of taking them. When the time of suckling comes, the mother is often persuaded that they are still more requisite; large quantities are taken; present injury is done to the infant, and irreparable mischief to the mother, by the foundation being laid for the vice of intoxication.

'Longings' generally proceed from a morbid condition of the nervous system, or are probably but indulgence in whims and fancies. A strong-minded woman will resist these. A weaker mind must be restrained by others, as it is very seldom that the things longed for are beneficial to the health. Even if harmless, their gratification only engenders or fosters others.

Tight-lacing, sufficiently injurious at any time, is tenfold more so during the condition of pregnancy. The free expansion of the womb and enlargement of the abdomen are thereby hindered; besides that, the development of the breasts and nipples is also interfered with. Many modes

of preparing the nipples for suckling are suggested, but beyond washing them gently with alum and water for a few weeks before confinement, nothing of the sort should be practised. Miscarriage may be induced by too active meddling with the nipples.

Disorders attending Pregnancy. — *Indigestion, heartburn,* and flatulency, costiveness, or other derangements of the bowels, also harass many females during the period of pregnancy.

Half a teaspoonful of carbonate of magnesia, with or without half that quantity of carbonate of soda, will generally allay this sickness, heartburn, etc. Or, if these do not avail, Prescription No. 5 will probably effect some relief. Or tonics may be tried. Much care is to be taken that the stomach is not overloaded.

Costiveness produces headache, etc., and should be avoided by the occasional use of castor oil, or confection of senna, or pills (see Prescriptions, or the antacid aperient (see Prescription No. 5), or a clyster of warm water or gruel every second or third morning.

Palpitation and *Fainting* are often distressing affections, and cause alarm, although unattended with danger under these circumstances. They may be relieved by a few doses of the medicine (Prescription No. 34). It is especially requisite to attend to the state of the stomach and bowels during the intervals of the attacks,—avoiding over-fatigue, over-heated rooms, or mental excitement. Tonics may also be given.

Piles are the result, partly, of pressure of the enlarged womb upon the veins of the lower bowels; but they are as often caused by costiveness. For their relief, treat the confined state of the bowels; apply warm fomentations, and some simple ointment. If these means do not afford relief, three or four leeches should be applied. Piles should never be tied or removed by surgical operations during pregnancy.

Varicose or *enlarged veins,* which are apt to appear on the legs, are the cause of much pain and impediment to locomotion, more particularly during the latter weeks of pregnancy. They are not so often met with in first as in subsequent pregnancies. An elastic stocking affords con-

siderable relief; but it is still more important that the patient should as much as possible keep in the recumbent posture.

The ankles and legs frequently swell very much towards the end of pregnancy. This symptom requires the legs to be kept up in the horizontal posture.

Neuralgic pains,—such as toothache; face-ache; shooting pains in the breasts, in the side, etc.; cramps in the legs, and in the womb,—are among the disorders to which pregnant women are liable. These may be relieved by antacid aperients and antispasmodics.

Irritability of the bladder, and *irritation of the external organs*, are often the source of great discomfort and distress. The former may be relieved by mild aperients, and by twenty or thirty grains of carbonate of soda, with twenty or thirty drops of tincture of henbane. The latter by warm fomentations, or by either of the lotions (see Prescriptions Nos. 56 or 59); or if these do not give relief, a poultice of hemlock, or the lotion (see Prescription No. 59).

Despondency and lowness of spirits are very commonly met with towards the latter end of pregnancy. They will in general vanish as soon as the labour is ended, if not as soon as it has set in.

Reckoning of the Date of Labour.—The usual and most convenient method of reckoning is to take the date of last day of menstruation as the starting-point, and allow a few days' latitude beyond that. For ordinary purposes, nine calendar months, or ten lunar months, are counted from this date.

To facilitate the process of reckoning, the following short Table, which the author has found very useful, is copied from Mr. Haden's 'Medical Visiting List:'—

Nine Calendar Months.			Ten Lunar Months.	
From	To	Days	To	Days
January 1	September 30	273	October 7	280
February 1	October 31	273	November 7	280
March 1	November 30	275	December 5	280
April 1	December 31	275	January 5	280
May 1	January 31	276	February 4	280
June 1	February 28	273	March 7	280
July 1	March 31	274	April 6	280
August 1	April 30	273	May 7	280
September 1	May 31	273	June 7	280
October 1	June 30	273	July 7	280
November 1	July 31	273	August 7	280
December 1	August 31	274	September 6	280

This Table may be thus illustrated:—A woman has ceased to menstruate on the 1st of July; her confinement may be expected at soonest about the 31st of March (*the end of nine calendar months*), or at latest about the 6th of April (*the end of ten lunar months*). Another has ceased to menstruate on 20th of January; her confinement may be expected twenty days after the 30th of September (*the end of nine calendar months*) at soonest, or twenty days after the 7th of October (*the end of ten lunar months*) at latest.

PRICKLY HEAT. *See* Lichen.

PURPURA.

The Purples.

Symptoms.—Patches, or spots, of various sizes, resembling bruises; their colour varying from red to purple, livid, brown, greenish-yellow, and yellow.

There may be little or no constitutional disturbance or local irritation; or the spots may be tingling, like nettle-rash; or it may be attended with a disposition to bleeding from the nose, etc.; or, lastly, there may be fever more or less active. In some cases purpura has terminated fatally, by effusion of blood within the head.

Causes.—Debility; early age; constitutional disorders, *e. g.* small-pox, fevers, etc.

Treatment.—Tonics, *e. g.* mineral acids and steel; combined, if the bowels be confined, with purgatives (see Prescription No. 4); the doses being proportioned to the age of the patient. A liberal diet.

QUINSY. *See* SORE-THROAT.

RAINBOW RINGWORM. *See* TETTER.

RED GUM. *See* LICHEN.

REMITTENT FEVER. *See* FEVER.

RHEUMATISM, ACUTE, CHRONIC, AND NEURALGIC.

Symptoms.—1. *Acute.*—Begins with a smart attack of fever; a quick full pulse; foul tongue; high-coloured, turbid urine; profuse sour-smelling perspiration; wandering pains in the limbs. These pains increase in severity, and in the course of a few hours fix upon one or more of the large joints, which become hot, red, and swollen, exquisitely sensitive to movement, or on the slightest pressure, —so much so that the jar of a person walking across the room or approaching the patient's bed will cause him to shriek with pain. The affected joints become swollen, hot, and red. This inflammation shifts, often rapidly, from one

joint to another; thus, if the shoulders should be inflamed to-day, the wrists, the knees, or the ankles, may be inflamed to-morrow; or the shifting of inflammation from any of these joints may be equally uncertain, and the parts previously affected may be entirely free from all pain.

At the same time the heart may become inflamed; in most instances, however, it escapes. The symptoms indicating that it is affected are pain in its region, palpitation, cough, anxiety, and difficulty of breathing.

2. *Chronic or subacute.*—The pain is less severe, and is more frequently seated in the muscles, or their tendons, than in the joints; the affected parts are stiff and painful, the pain aggravated by movement or pressure. Of this character is that known as 'lumbago,' or rheumatism of the back; rheumatism of the scalp, ribs, etc. The profuse sweating, rapid pulse, etc., of the acute form are absent in the chronic form.

3. *Neuralgic.*—The pain is very acute, but not attended with fever. It usually follows the course of the nerves. Hence one form which is known as *sciatica;* another approaches in character to tic douloureux.

Causes.—The primary cause is a morbid condition of the blood, arising out of any circumstances which impair the general health. The exciting cause may be over-fatigue, anxiety, grief, etc.; exposure to cold, suppression of perspiration, etc.

Treatment.—1. *Acute.*—Absolute rest in a warm (not over-heated) room. The joints should be wrapped in cotton-wool, covered with oil-silk.

At the outset give calomel and Dover's powder at bed-time, to be followed by a rhubarb draught or Seidlitz powder the next morning. Then begin with the mixture (see Prescription No. 14). If the bowels act too freely, or the pain be not relieved, from 5 to 10 grains of Dover's powder may be taken at night. It is important to procure sleep, otherwise the severity of the pain and the want of rest may produce very serious nervous excitement. Low diet is to be strictly enjoined.

The objects aimed at by the above treatment are to secure free action of the skin, kidneys, and bowels, by which it is believed the morbid poison may be carried out of the system.

The continued use of the alkaline medicine is apt to produce irritation of the intestines, or to exert a depressing influence upon the system. They should therefore be withdrawn when the symptoms subside, or the urine has become alkaline.

If a piece of test-paper (litmus) be at hand, the condition of the urine may be ascertained from day to day; when it ceases to redden the paper, it is a proof that enough alkali has been given. If the litmus paper be not at hand, a piece of white blotting-paper, soaked in the liquid of pickled red cabbage, will avail. If the urine be alkaline, it will turn this red to blue.

In the acute form, occurring in persons of robust frame, one tablespoonful of lemon-juice every four hours, and after a few doses increasing the quantity to two tablespoonfuls, will sometimes effect a speedy cure; but in the majority of instances in which the author has used this remedy it has ceased to have any control over the disease after the third or fourth day. The alkaline treatment can then be adopted.

2. *Chronic.*—Take the powder (see Prescription No. 40), with or without, according to the severity of the pain, from 5 to 10 grains of Dover's powder, every night. Warm bath every other day. A hot vapour-bath is very useful in chronic rheumatism. This may be extemporized by putting a red-hot brick or stone into a pail of hot water, the patient sitting on a chair or stool beneath which the pail is placed. The patient should be enclosed in a blanket up to his neck, taking care to protect the legs, etc., from the immediate contact of the hot steam. A low diet is not required in the chronic form.

In the subacute form, known as *stiff neck*, the local application of a mustard plaster or stimulating liniment will be of service.

3. *Neuralgic.*—Same treatment as chronic rheumatism, except that sedatives and purgatives may be more freely taken.

RICKETS.

Softening of the Bones.

Symptoms.—These are first shown by an indisposition or inability for exertion; impaired or capricious appetite; irregular or disordered bowels; soft flabby flesh; profuse perspiration; loss of flesh. After these symptoms have lasted for several months, a disproportion becomes apparent between the size of the head and of the body: the abdomen becomes enlarged; the bones of the arms and legs are observed to be bent, and their extremities enlarged, swollen, or knobby. This state may remain for years, and never get worse; or the softening and deformity of the bones increases so much that it is not possible for the sufferer to sit erect, and the organs within the body become so encroached upon and interfered with, that they can no longer perform their functions.

Causes.—External debilitating agencies affecting the parents. Want of earthy matters in the bones.

Treatment.—A healthy wet-nurse; pure fresh air; attention to the state of the bowels, etc. Sea-bathing; sponging and friction of the body and limbs; mineral acids and other tonics internally. Good nutritious diet; earthy matters, as lime-water and magnesia, to be given as often as possible in the food.

RINGWORM.

Symptoms.—Itching and redness of the skin of the head or face, with minute pimples, occurring in circular or irregular-shaped patches of various sizes. The pimples form small dry scales, and spread in different directions, causing the hair to fall off, and leaving bald places on the scalp.

Causes.—Contagion is the most common cause; but it may originate in children from impaired health, or improper feeding.

Treatment.—The milder form of ringworm may generally be checked in the onset by lightly smearing the patches over with a moistened stick of nitrate of silver. A black surface is soon formed, which will fall off in a day or two.

If the first stage has been allowed to pass, it will require the application of citrine ointment or creasote twice daily.

ROSE RASH.

Roseola ; False Measles.

Symptoms.—Patches of redness, small in size and irregular in form, distributed over more or less of the surface of the body ; and more or less redness of the throat. There is slight tingling of the skin. The redness disappears by degrees, sometimes leaving marks like bruises.

There is usually some fever : this varies in amount and severity. A rash of this kind also sometimes occurs in the course of continued fevers.

This rash may be distinguished from measles by the absence of catarrhal symptoms, by the irregularity of its form, by the less amount of fever, and by its not being infectious. The distinction however is not always easy.

Causes.—Thin, delicate skin ; weakly constitution ; teething ; irritation in stomach or bowels ; exposure to cold, or drinking cold water when surface of body is heated ; over-loading stomach with indigestible substances, etc.

Treatment.—Mild aperients. Sponging the surface with warm water.

RUPTURE.

Hernia.

Symptoms.—A soft swelling at the lower part of the abdomen, on one or both sides, or upper part of the thighs, in the groin : the tumour increases in size when the patient stands up ; or, when the hand is laid upon the swelling, it is found to increase during cough.

If the protrusion consist of intestine, the movement and sound of flatulency may often be perceived in it, especially as it passes back into the abdomen when pressed in the right direction, if the rupture be of a *reducible* kind. Sometimes, when the rupture has been long or frequently protruded, it will, after some time, not return, but remain per-

manently in the scrotum, or forming a tumour. It is then called an *irreducible* hernia.

It frequently suddenly happens that a rupture which has hitherto been reducible cannot be returned by the means that have usually been successful to that end. It is then called a *strangulated* rupture. The symptoms of strangulation, or constriction, are—pain in the abdomen, distension, frequent desire to go to stool, without evacuation of the bowels. Vomiting follows, at first of the contents of the stomach, but, soon after, having the odour and other characters of the contents of the intestines. The tumour becomes tender to the touch, the pulse small and rapid, the countenance anxious, the patient restless. If relief be not obtained, all these symptoms go on getting worse; the pulse sinks, the skin becomes cold, and the patient, after expressing a sense of entire relief from pain, dies with mortification of the strangulated portion of intestine.

The rapidity with which these symptoms will run through their course varies greatly with the strength of the patient and the date of the rupture. Surgical aid should be immediately sought, even from a great distance.

Causes. — Violent exertion, such as lifting heavy weights; straining hard, etc. Rupture sometimes exists at birth.

Treatment.—The tumour should be taken between the fingers of the right hand, and steadily pressed upwards towards the abdomen, the patient lying upon his back with his shoulders raised. The application of ice in a bag will often favour the replacement of a rupture.

If this have failed, and, from obstinate costiveness and pain, there be fear of strangulation, this operation should be performed in a warm bath, the patient's shoulders being raised, and the thighs as far as possible being bent upon the abdomen. The repetition of purgatives, or violence in the attempt to pass the bowel back, must be avoided. If the attempt do not succeed, it may be aided by the application to the swelling of pounded ice contained in a bladder.

Failing these means, surgical aid cannot be too quickly obtained.

In the majority of instances, happily, the bowel readily returns by using the above means. To prevent the risk of

strangulation a truss should always be worn. It should be taken off and put on while the patient is in a lying posture, in order to prevent its pressing upon the contents of the rupture. The steady and careful use of a truss will entirely cure congenital hernia, or that which occurs at birth.

Trusses are to be obtained of surgical instrument makers.

SCABIES. *See* Itch.

SCALL AND SCALLED HEAD.

Crusted Tetter; Milk-Crust.

Symptoms.—Eruption of small flattened pustules in clusters, or scattered closely over a space. The pustule in two or three days bursts, and discharges a thick yellow matter, forming a thick crust. It appears on different parts of the body. In children at the breast it is prone to occur on the head and face, where they cause much itching, and lead the child to scratch them. Thus the skin often bleeds, and thereby scars are sometimes permanently left.

In the eruption known as *scalled head* the pimples change to pustules, which, bursting, form a thick offensive crust. This disease often extends over the whole scalp, and appears also on the face.

Causes.—Constitutional disorders; contagion; dentition; excess in diet; insufficient or bad food; local irritation by dry powders, as dust, lime, etc.

Treatment.—Fomentations; water-dressing; zinc ointment; white precipitate ointment; creasote lotion; alteratives and aperients occasionally, according to the state of the bowels.

No local applications will be of any service, when the scalp is the seat of the affection, unless the head be regularly washed every day with some mild soap and water.

Scalled head should be poulticed whenever the scabs accumulate; and zinc, or white precipitate ointment, freely applied, so as to form a constant covering. If these fail, citrine ointment or creasote may be applied. The surface should be washed with soap and water every morning, so as to ensure the complete removal of discharge, etc.

Alteratives, aperients, and tonics (see Prescriptions)

should be taken at the same time. The diet should be carefully regulated, so that it shall be light and nutritious. Indigestible substances should be cautiously guarded against.

SCARLATINA.

Scarlet Fever.

Symptoms.—After the existence of febrile symptoms and general indisposition for a period varying from one or two to four days, the skin becomes hot, and an eruption appears, consisting of minute scarlet points collected in patches, or forming a diffused colour, like that of a boiled lobster, over the greater part of the body. This rash lasts about five to seven days, and then disappears, leaving the skin harsh and dry, or scurfy, or peeling off in thin scales. The peeling of the skin is sometimes deferred for several days after the disappearance of rash and fever. While the rash is out, it causes itching or tingling of the skin. The tongue presents a characteristic appearance: it is white or furred, but with this are seen the minute papillæ of the surface prominent, and of a scarlet colour, giving the likeness of a raspberry. Or the fur may be wanting, and the tongue be entirely scarlet, but presenting the same enlarged papillæ. The throat likewise is reddened, the tonsils enlarged, scarlet and ulcerated; swallowing is painful.

While the eruption is out, if the disease be of an active or severe character, the countenance is expressive of anxiety; the eyes are brilliant; there may be delirium; the patient is restless and sleepless; there is great thirst; nausea or vomiting; rapid pulse; quickened breathing; costive bowels; scanty high-coloured urine.

These symptoms subside as the skin becomes paler and begins to scale off, and the ulcers of the tonsils heal.

All these symptoms, which belong to the common form of scarlatina with sore throat, may be much varied. Thus there may be all the symptoms except the rash on the skin, or the latter may be present and the others wanting. These and other variations are often met with where there are several members of one family in which the disease has appeared.

Cases also occur in which, the rash not appearing, fatal

congestion of the brain has taken place, and the patient has been rapidly carried off.

The type or character of the fever is also liable to differences in degrees of danger. In some the fever is mild, and the whole disease a slight affair; in others the fever runs high, the ulceration of the throat is severe, and the disease prone to become typhoid. In some, again, the affection has a malignant character from the onset; the eruption brown or dusky; the nervous system seems as if poisoned; the pulse small and rapid, the face bloated, the tongue brown, the eyes red, and heavy-looking; convulsive twitchings of the limbs, convulsions, coma, etc. In some cases, rapid and extensive mortification or sloughing of the throat takes place.

There is one result or consequence of scarlatina which should be closely watched. From the fifth to the twentieth day after the disappearance of the rash, dropsy of the surface is liable to occur from slight exposure to cold; or it may even occur without this exciting cause.

It is not in the severest cases alone that this occurs,—it is quite as frequently met with in those cases in which the rash has been indistinct.

Another result, or more immediate complication of scarlet fever is swelling of the joints, sometimes regarded as a form of rheumatism; but really of a far more serious nature, as it indicates a low condition of the system, and is often rapidly followed by the effusion of matter about the joints and fatal symptoms of blood-poisoning.

Besides this, there are several other consequences of scarlatina; *e. g.* inflammation and ulceration of the passage of the ear; swellings of the glands of the neck; diarrhœa; chronic cough; hectic fever.

Distinctive characters.—Scarlatina and measles are sometimes confounded together. The following may assist to distinguish them:—

Scarlatina.	*Measles.*
Precursory symptoms, one day.	Precursory symptoms, three days.
No cough, expectoration, or other signs of catarrh.	Running at the nose and eyes, sneezing, cough, and other symptoms of catarrh.

Scarlatina.	*Measles.*
Eruption on second day of fever.	Eruption on fourth day of fever.
Colour of eruption bright scarlet, in large patches, or diffused.	Eruption in crescentic patches, colour darker red.
Peeling or scaling off of skin, like a scurfy powder.	Slight casting off of skin.
Odour like old cheese.	Odour sweetish till decline, then sour.
Dropsy following.	Not followed by general dropsy.

Both these diseases are frequently epidemic at the same time, and their characters are then sometimes so intermingled as to be scarcely distinguishable.

Causes.—Infection. The period which elapses from the moment of infection to the appearance of illness varies from a few hours to twelve days. The infection of scarlatina appears to be of an obstinately adherent character; it is impossible to say at what period it may have entirely disappeared from garments, clothes, or buildings. Warm bathing daily so long as the peeling of the skin continues diminishes the risk of infection.

Treatment.—The object to be held in view is to endeavour to assist the constitution in throwing off the poison which gives rise to the disease, or to support the system while that is effected. This may be done, in the milder cases, by doses of carbonate of ammonia every four hours, at the same time an aperient should be given if the bowels be costive. A warm bath should be given night and morning, or if not procurable, frequently sponge the surface of the body with tepid vinegar and water. The room should be freely ventilated, taking precaution that the temperature of the surface of the patient's body be not suddenly lowered, as the eruption would thereby be checked. The thermometer should stand at about 60° in the chamber. The diet should be light. Cold water and simple fluids may be freely allowed. As the fever declines, mild tonics, *e. g.* citrate of iron, or quinine, may be given. Beef-tea, wine, etc., may be allowed. A gargle will relieve the sore-throat (see Prescription No. 70 or 71), or it may have a solution of nitrate of silver (15 grs. to the oz. of water) applied to it with a brush.

In the more severe and active inflammatory form, in

which the throat is ulcerated, it may be touched with a stronger solution of nitrate of silver (1 drachm to the ounce of water) two or three times a day. A poultice of bran or bread-crumb should be applied. Tincture of iodine may afterwards be freely painted on the outside of the throat two or three times a day. When the throat sloughs, and the febrile symptoms are less active, or have declined, a more liberal diet should be allowed. Strong beef-tea, etc., and wine, should be given. Tonics, such as mineral acids should be given.

In the malignant or worst forms, bark and ammonia (see Prescriptions), with wine or brandy every two, three, or four hours, according to the degree of depression or debility, must be given at the commencement. The skin should be sponged with warm vinegar. If the eruption do not appear freely, or be of a dark or dull colour, the patient should be placed in a hot bath in which mustard has been diffused. The principle to be borne in mind in such severe cases is, to support the constitutional powers, and thereby enable the system to throw off the poison by the skin, kidneys, etc.

When the joints swell they should be wrapped in carded cotton or wadding, and wine or brandy, with strong beef-tea and other concentrated forms of nutriment, should be given at short intervals. The medicine suitable for this condition is the carbonate of ammonia, with chloric ether.

SCIATICA. *See* Rheumatism.

SCROFULA.

Strumous Habit of Body; King's Evil.

Symptoms.—A debilitated state of constitution, with a disposition to swellings and abscesses of the glands; a flabby, pale, or dull aspect of the countenance and skin; eyes light-coloured, eyelashes long; nose wide; upper lip thick and projecting. Proneness to disorders of the stomach and bowels. With the bodily debility there is often precocity of mind.

Causes.—Hereditary and constitutional predisposition; induced or excited by all those external agencies which tend to depress or restrain the vital energies,—*e. g.* want of light, pure air, good food, warm clothing, etc. Frequent intermarriages among individuals of scrofulous families or among too near relations.

Treatment.—Scrofula being rather a constitutional weakness than a disease, is to be treated by all such rules of diet, exercise, etc., as are conducive to health. The particular diseases that may occur in scrofulous persons are to be found in this work under their several names. At the same time, it may here be stated that the medicines which are best suited to scrofulous patients are iodine, and its combinations with iron or potash, mineral acids, cod-liver oil.

SCURF. *See* DANDRIFF.

SCURVY.

Scorbutus.

Symptoms.—General debility, lassitude, lowness of spirits; the gums become swollen, spongy, or purple, and bleed on slight friction. The odour of the breath is offensive. The patient suffers from pains in the limbs, stiffness of the joints, and is averse to any exertion. The skin is dry and harsh, shining, and discoloured with streaks of blue, greenish, black, or livid hues, resembling those of bruises. These patches are first observed, and are most numerous, on the thighs and legs; they soon appear on the arms, body, and scalp, but rarely on the face, which assumes a dingy, bloated hue. The ankles and legs swell. The disease persisting, all these symptoms become more distinct and severe; hæmorrhage from the nostrils, mouth, bowels, etc., is added; swellings occur in different parts, and ulcers form on the legs, discharging a thin fœtid fluid. The bowels are generally more or less disordered from the beginning, and after a while become affected with the disorder known as "scorbutic dysentery." The pulse is feeble, often rapid. The tongue is flabby, and marked with furrows by

the teeth. The appetite is not impaired until the latter stages of the disease.

Causes.—Deficiency of succulent vegetables and fruits; unwholesome provisions and water; exposure to cold and moisture; previous diseases, *e. g.* fevers.

Treatment.—1. *Preventive.*—Supply fresh acidulated fruits, as limes, lemons, shaddocks, oranges, pomegranates, tamarinds, etc.; fresh vegetables; fresh meat. Among antiscorbutics are also the following:—Tops of firs and mountain pines; tar-water; molasses; wort, or infusion of malt; various fermented liquors and wines; vinegar; mineral acids; cocoa, tea, etc.

2. *Curative.*—When the disease has appeared. the free use of the above-named articles may be regarded in the light of medicines, at the same time that tonics are taken; mild aperients if the bowels be costive. Diarrhœa may be checked by chalk mixture or creasote (see Prescriptions); dysentery, by Dover's powder (see *Dysentery*). When the debility assumes the form of low fever, quinine, bark, and ammonia are to be given (see Prescriptions and *List of Medicines*).

SHINGLES. *See* TETTER.

SICKNESS.

Although sickness is really but a symptom of some malady, it may be much more obvious than its cause, and it will therefore be useful to give a few hints on its—

Treatment.—The remedies that are found useful are, ice broken or split into small pieces and allowed to melt in the mouth; lime-water, alone or mixed with an equal quantity of milk; soda water; champagne; and the application of a mustard plaster to the pit of the stomach.

It need scarcely be added, that if the sickness have been caused by improper feeding, an emetic of mustard and water, or of ipecacuanha will be the proper remedy.

SKIN, EXCORIATIONS OF; CHAFING.

Treatment.—Wash frequently; if in an infant, powder with starch powder, or zinc powder (oxide of zinc), or

calamine powder, or the free application of zinc ointment. Take care that the napkins used for infants have been washed in water free from soda.

SKIN, INFLAMMATIONS OF.

The symptoms of inflammatory diseases of the skin vary very greatly, and must be sought for under the names of the eruptions in several parts of this work; *e. g. Erysipelas, Shingles, Eczema*, etc. etc. There are, however, certain characters of these diseases which may here be pointed out.

Inflammation of the skin has a great tendency to spread, as seen in erysipelas, etc.

If the inflammation be extensive, it has a tendency to produce affections of important internal organs: *e. g.* the brain, in erysipelas; the bowels or lungs, in burns and scalds.

Inflammation of the skin has also a tendency to suppuration; thus, in erysipelas, it frequently happens that matter spreads and forms abscesses, implicating a considerable extent of surface beneath the skin.

The treatment of these complications must be according to the directions given under their respective headings.

SMALLPOX.

Variola.

Symptoms.—These vary with the type of the eruption and the severity of the fever. They are here given at considerable length in order to prevent the not uncommon error of confounding this with other eruptive fevers. Smallpox is divided into—

Distinct, or "discrete.
Semi-confluent.
Confluent.

Either of which may be—

Benignant or mild.
Modified.
Malignant.

Benignant, or Mild.—The attack itself is divided into four periods; viz. those of—

1. Incubation.
2. Invasion.
3. Eruption.
4. Decline.

1. *Incubation.*—This is the period that elapses between the moment of infection and that of the appearance of indisposition. It usually occupies twelve days. This period generally passes without any signs; there may, however, be languor, lassitude, headache, and general malaise.

2. *The stage of Invasion*, or the development of decided indisposition.—This occurs on the twelfth day, usually. Fever, shivering, heat of skin, rapid pulse, pains in the loins and limbs, pain most severe at the pit of the stomach, headache, vomiting, cramps, or even convulsions,—some, or all of these symptoms may be present. The more severe these premonitory symptoms, the more severe, generally, the subsequent disease. They are slight in the distinct or milder and modified forms of smallpox; in the confluent, or in the malignant forms, the symptoms attendant on the invasion are usually very severe.

3. *Stage of Eruption.*—About forty-eight hours, it may be a little later, from the commencement of the preceding stage, the eruption makes its appearance, to the great relief of all the other symptoms. Fever, however, continues throughout the eruptive stage; the pulse becomes increased in frequency; a peculiar faint odour is perceptible in adults. Minute pointed red pimples, hard to the touch, and raised above the surface of the skin, show themselves successively on the face, forehead, neck, and wrists, breast, limbs, and body. They appear last on the legs and feet. Twenty-four hours elapse before the eruption has fully appeared.

In the *discrete*, or benignant form, the spots are fewer, and have clear spaces of skin between them. In the *confluent* they are thickly clustered together over a large extent of surface. In the *semi-confluent* they may in some places be clustered together in small patches, while over other parts of the surface they are distinct. On the second day of the eruption the pimples are red and inflamed around their bases. The pimples go on enlarging, and contain a thin clear fluid; by the fourth or fifth day their conical tops become flattened, and the vesicles present a depression

in the centre. By the sixth day the vesicles contain an opaque or milky fluid. By this time the face has become swollen, in the more severe forms, and the features often so disfigured as to be scarcely recognisable. The eyelids are closed by the swelling. The eruption may appear in the nostrils, mouth, tongue, and throat, extending to the organs of the voice, which is then rendered hoarse and weak, and is attended with a troublesome cough, and frequently with profuse salivation. After the sixth day the vesicles begin to contain yellow matter, and by the eighth day are mature or complete.

The patient in the confluent form is often in great peril of life during this stage of the disease.

4. *Period of Decline*, including the drying-up of the eruption.—From the eighth to the eleventh day the contents of the vesicle undergo condensation, and form a scab. This is attended by the *secondary* fever, sometimes with delirium. The eleventh day is a point of considerable importance to have passed over safely, especially in the confluent form.

After this the scabs begin to fall off. The swelling of the skin subsides, the sites of the pustules either leave a temporary brown discoloration or a permanent scar or pit.

The drying-up of the eruption takes place earlier on the face than elsewhere; indeed, it will be found that the eruption goes through all the stages so much earlier on the face, that while crusts are there present the vesicles may be immature on the legs.

In the confluent form the scabs are so numerous and so closely crowded, that an entire mask often covers the face.

The period that elapses before all the scabs have fallen off is extremely various, depending upon their number and the consequent severity of the disease: it may be as long as three or four weeks from their first appearance.

The above constitutes the ordinary course of smallpox, either distinct, semi-confluent, or confluent, occurring in persons not previously vaccinated.

We have now to state the characters of the disease as modified by vaccination, and in its more severe or malignant forms.

Modified.—Vaccination exerts so great an influence

over smallpox, that even where it does not entirely protect from the disease, it disarms it of its severity and danger in a very large majority of cases. If good deeply-marked scars of previous vaccination are apparent, the small-pox will sometimes be arrested in its earliest stages of pimples, and the formation of vesicles be arrested; or, what is much more commonly the case, the vesicles go through an irregular course, the fever is less severe, and the scabs smaller, sooner falling off, and leaving slighter traces than in natural smallpox which has not been preceded by vaccination. So great is the modifying influence of vaccination, that we would strongly urge upon all persons not having good scars of previous vaccination that they should be re-vaccinated.

Many persons, moreover, who have had smallpox severely after vaccination, have owed their lives to the modifying influence of vaccination. In modified smallpox, the greater advance of the disease on the face, chest, etc., as compared with its progress on the lower extremities, is very well marked.

Malignant Smallpox.—In this form the symptoms from the first exhibit great depression of the vital energies; the pulse is feeble and rapid; there is much delirium, with low muttering, trembling, and twitching of the limbs. When the eruption appears, many of the vesicles, or it may be only a few, have a dark or purple centre. This is a very grave appearance, as such cases mostly terminate fatally. Spots of effused blood also appear with them on different parts of the body, and the patient rarely survives the second stage.

Complications of Smallpox.—The danger in smallpox is greater in proportion to the number of pustules, or, in other words, to the extent of skin the functions of which are interrupted. The consequence thereof is congestion of internal organs, as the brain, or lungs, or bowels, etc., giving rise to bronchitis, diarrhœa, etc. etc. Thus, a pregnant woman is almost sure to miscarry, or give birth prematurely to an infant, which is most frequently dead, and which may or may not have received the disease. Pregnancy is a very unfavourable circumstance, since, if the smallpox be severe, it will determine the delivery or abor-

tion, and the process in either case increases the mother's risks. The puerperal or lying-in condition increases the danger of smallpox.

It has already been stated that the eruption appearing in the mouth may extend to the organs of voice and to the windpipe, and produce disease in those parts, which adds very considerably to the danger, and may remain in a chronic form after the smallpox has disappeared.

The most frequent complication is inflammation of the eyes, or of the glands; or the formation of abscesses in various parts of the body.

Causes.—Infection and inoculation. When taken in the former way, it is called "natural," in contradistinction from the latter. Inoculation of smallpox is now an infraction of the laws of England, justly punishable by a penalty of fifty pounds or imprisonment. Persons labouring under inoculated smallpox may infect others, form so many foci of contagion, and thus perpetuate this dreadful scourge. Since vaccination has been introduced by Jenner, there is therefore no longer any pretext or justification for the dangerous practice of inoculation.

It has not been determined how long the infection of smallpox will preserve its virulence, or to what distance it may extend from the patient. It is generally believed that infection may be removed from garments, bedding, etc., by exposing them to a temperature equal to that of boiling water.

Age must be regarded as a predisposing cause of smallpox. The statistics of the Smallpox Hospital, published by Mr. Marson, the resident-surgeon of that institution, show natural smallpox to be most fatal in infancy and advanced life; the least so from 10 to 15 years of age; under 5 years of age the mortality is 50 per cent., after the age of 20 it rises suddenly, and increases gradually; the mortality at 30 exceeds that of infancy, and after 60 there is hardly any escape.

Treatment.—Smallpox is a definite eruptive fever, for arresting the course of which no medicinal means have yet been discovered, if even it could safely be done. In the milder forms no medicine is required. The symptoms of the period of invasion will require a mild aperient. Strong

purgatives do harm, by determining morbid action to the intestines, and interfering with the state of the skin. In the secondary fever a simple saline mixture (see Prescription No. 2, omitting the tartar emetic) will be sufficient. If the fever be severe, and there be symptoms of congestion of the brain, such as intense headache, etc., from four to six leeches may be applied in the cases of adults only. But care should be taken not to assume that congestion or inflammation of the brain exists because the patient is delirious,—mere febrile excitement will produce delirium. Sleeplessness, proceeding from irritation of the skin, may be relieved by a dose of Dover's powder. The most important measures are the securing a well-ventilated chamber; observing a light diet, chiefly bread and milk; lying on a mattress; and sponging the surface with warm or tepid water. When the eruption is very full, comfort is derived from dredging the surface with flour. More harm is likely to be done by meddlesome physicking than by entirely withholding medicines.

As the eruption declines, the diet may be increased by beef-tea, etc.; and when the scabs have begun to fall, meat diet.

In the malignant form of the disease, wine, ammonia, and other stimulants, are required soon after the eruption appears.

If the eyes be inflamed, and vesicles form upon the surface, a rag dipped in cold water should be kept constantly applied.

Various means have been recommended for the purpose of preventing the disfigurement of the scars and pits on the face. This is a matter of great importance to females. Unfortunately, however, these vaunted means have been found wanting. Their enumeration is therefore unnecessary. The only trustworthy means of preventing the pitting of smallpox is vaccination.

The removal of the scabs may be facilitated by smearing them with the best olive-oil.

A most important object is the prevention of the disease. This is to be effected only by vaccination.

VACCINATION.

The Smallpox and Vaccination Committee of the Epidemiological Soiety presented to Parliament a Report upon the state of vaccination in Great Britain, as compared with other European States; showing the prevalence of smallpox in the British dominions to be attributable to the indifference and carelessness with which vaccination is performed or neglected. The Report was printed by order of the House of Lords.

A most valuable and elaborate paper has also been published by J. F. Marson, Esq., the resident surgeon of the Smallpox Hospital, setting forth an analytical examination of all the cases admitted into that institution during sixteen years. This analysis has been received by the medical profession as the most exact, trustworthy, and important contribution that has been hitherto made to the store of facts belonging to the history of smallpox.

From these two sources we can demonstrate the protective influence of vaccination against smallpox; and exhibit its failure according as that operation has been perfectly or imperfectly performed.

Every unvaccinated person is liable to smallpox, and may, therefore, also become the source of infection to others. At the same time, he has only two chances to one of escaping with his life; and even if he be so fortunate, his countenance is disfigured, and his health probably impaired for life.

The only safe and certain preventive of this fatal and loathsome disease is *vaccination*. This is proved—1st, by the fact that, in proportion as vaccination is properly and efficiently performed, so the mortality of smallpox is reduced; 2ndly, by the freedom from infection enjoyed by well-vaccinated persons in contact with smallpox patients.

The first point is further illustrated by statistics, which show the mortality of smallpox to have been 96 per 1000 in the fifty years preceding the introduction of vaccination, and 35 per 1000 in the fifty years subsequently. This reduction of mortality has gone on progressively in those countries where the performance of vaccination has been

rigidly enforced by the governments. Thus the mortality of smallpox before and after vaccination was,—

	Before Vaccination was introduced.	After introduction of Vaccination.
	Per 1000.	Per 1000.
Lower Austria	67	7
Upper Austria	46	6
Trieste	142	6
Prussia (Eastern)	111	12
Prussia (Western)	75	10
Saxony	27	8
Sweden	71	2

In Sweden the laws regarding vaccination are most stringently carried out, and in that country the mortality from smallpox is lowest; while in England, the birthplace of vaccination, the mortality from smallpox is highest of all European countries!

These returns do not give the proportion of vaccinated and unvaccinated individuals among those who have died of smallpox. This deficiency is, however, supplied by Mr. Marson from the records of the Smallpox Hospital.

Of the 5982 cases admitted during the sixteen years, 1836 to 1851 inclusive, 2654 had the *natural* smallpox, or the disease without having been previously vaccinated: of these, died 37 per cent. 3094 had been previously vaccinated, the mortality among whom was $6\frac{3}{4}$ per cent.

Among the vaccinated, the evidence of previous vaccination was taken from the scars remaining on the arms. These told very forcibly for the protective influence of efficient vaccination. Of those who had only one scar—a good scar—the mortality was $4\frac{1}{4}$ per cent.; with one indifferent scar, 12 per cent.; the average, $7\frac{1}{2}$ per cent.

Of those with two scars—good scars—the mortality was $2\frac{1}{2}$ per cent.; with two indifferent scars, $7\frac{1}{4}$ per cent.; the average, about 4 per cent.

Of those with three good scars the mortality was $1\frac{1}{2}$ per cent.; with three indifferent scars, $2\frac{1}{4}$ per cent.; average, $1\frac{3}{4}$ per cent.

Of those with four scars, the average mortality was $\frac{3}{4}$ of 1 per cent.

Of all, there died with good scars, 3·04 per cent.; with indifferent scars, 9·77 per cent.; with one or two, 6·21 per cent.; with three or four, 1·30 per cent.

In the preceding statistics it will be seen that a larger number of patients received into the Smallpox Hospital had previously been vaccinated, than of those who, not having been vaccinated, took the smallpox in a natural way. This is not owing to any defective protective power in vaccination, but is attributable to the fact of the greater prevalence of vaccination now than formerly; and, at the same time, to the careless manner in which the operation is too often performed, especially among the poor of rural districts.

In treating of smallpox, we have stated that the danger is in proportion to the amount of the eruption. The proportionately decreasing mortality, according to the number of vaccine scars, above stated, affords evidence of the great value of carefully-performed vaccination, not only in saving life, but in diminishing the injury done to the health and countenance by the quantity of smallpox eruption. The protective power of vaccination is very strikingly exhibited in the figures referred to.

The experience of the Smallpox Hospital proves vaccination to be protective up to the age of fifteen or sixteen years, at least. It is, therefore, advisable that all persons who cannot show three or four good scars should be revaccinated at the period of puberty. Certainly it is only a proper measure of precaution, that all persons should be revaccinated who are dwelling in a house where smallpox occurs. Revaccination has always been practised upon all servants or nurses of the Smallpox Hospital during seventeen years; and although this is the only measure of protection put in practice, not one has been attacked by smallpox during that period.

Furthermore, to show the protective influence of vaccination, when properly performed, Mr. Marson has stated that of the 20,422 persons vaccinated, on an average, annually at the metropolitan vaccine institutions, there have been admitted to the Smallpox Hospital only 9 a year, or 1 to 2108 vaccinated thereat; and that the deaths have been only in the proportion to 1 in 36,305 individuals!

In Mr. Marson's words:—"This may be truly designated one of the triumphs of medical science!"

There can be no doubt that diligent and careful performance of vaccination would in time all but extirpate smallpox.

The operation of vaccination is simple, but it requires nice care in its performance to do it efficiently, and with certainty and judgment in the selection of matter to be used, which should be inserted moist, and as fresh as possible. If possible, the lymph should be taken fresh from the arm, and inserted immediately into the other arm.

The lymph should be taken only on the *eighth day* after vaccination,—that is to say, the day week of the performance of the operation,—on which day the vesicle should be mature. If the vesicle be not mature on the eighth day, it is irregular in its course, and no confidence should be placed in an irregular vesicle, so far as its protective power for others is concerned. Even for the subject of the irregular vesicle, it would be wise to revaccinate after a year or two.

A mature or eighth-day vaccine vesicle should be of about the size of a small pea, contain clear pearly lymph, be depressed on the centre of its surface, and surrounded by a ring of slight redness or inflammatory appearance of the surface of the skin.

If the child be in good health, the operation should be performed near the age of three months, *i. e.* before the process of dentition has commenced and caused disturbance of the health.

The existence of an eruption on the skin, especially behind the ears, or of any serious illness, is sufficient reason for postponing the operation until the malady shall have subsided.

A perfectly clean and sharp-pointed lancet should be used. This lancet should not be employed for any other purpose without having been previously re-set. The vesicle should be very carefully punctured at several points, care being taken that the skin itself beneath the vesicle be not wounded. The vaccine lymph which oozes from the vesicle should be taken on the point of the lancet. Before inserting this into another arm, the latter should be firmly grasped by the left hand of the operator, so as to make

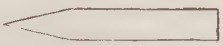
the skin somewhat tense before the puncture is made. The lancet should be held in a nearly horizontal direction; its point need not be introduced quite so far as the twelfth of an inch beneath, and nearly parallel with, the surface. Five punctures, each about half to three-quarters of an inch apart, on one arm, are sufficient. Either arm may be selected, according to the convenience of nursing.

In about three days a small inflamed pimple will be seen at some, if not all, the punctures; this will steadily increase until each has the character of maturity above stated. By the tenth or eleventh day the clear lymph has thickened, and begins to form a scab. The inflammation spreads, sometimes as high as the point of the shoulder, and towards the elbow. This gradually subsides, and, by three weeks' time, the scabs have usually fallen off, leaving reddish-coloured scars. These, after losing the red hue, should retain for life their pitted character.

It is a common practice to give aperient medicine before and after vaccination. This is unnecessary. The object of the operation being to develope in the system one disease which shall supersede the liability to another disease, it is only according to common sense that we should leave the disease so induced to run its course without the interruption that must be caused by medicine.

It sometimes, however, happens that the inflammation which accompanies the vesicles extends considerably beyond them, and produces fever. In this case it may be requisite to administer a mild aperient, and apply bread-and-water poultice, or water-dressing.

If the vaccine lymph be not wanted for present use, it may be preserved between pieces of glass, or upon the tops of small thin ivory points. In either mode it is essential that the matter be preserved in a dry place.



When required for use, the lymph so preserved should be carefully moistened with water and scraped on to the point of the lancet to be used in performing the operation.

Revaccination is not required under the age of puberty, if it have been properly performed in infancy. This may be proved by the presence of three, four, or five pitted scars.

If, however, before then, or after, a person be directly exposed to the infection of smallpox, it is wise to be re-vaccinated.

The lymph of a vesicle resulting from the second vaccination must not be trusted to for protection from smallpox, as the disease, not being primary, is modified in its nature by previous vaccination.

SORE-THROAT.

Inflammation of the Tonsils; Relaxed Sore-Throat; Quinsy; Ulcerated Sore-Throat; Malignant Putrid Sore-Throat; Diphtheria.

Symptoms.—In quinsy, in addition to the pain and difficulty in swallowing, on looking into the throat the tonsils or glands on each side will be seen considerably swollen; on the outside of the throat, at the angles of the jaws, a fulness may also be felt, with tenderness on pressure. The voice is altered and thickened. As the disease advances the voice becomes more stifled, swallowing is almost impossible, breathing is impeded, and at last suffocation seems to be threatened. At length, after these symptoms have existed for several hours, or in some cases for a day or two, relief is obtained by the bursting of the tonsils, in one or both of which the inflammation has gone on to form an abscess.

In ulcerated sore-throat the tonsils may be somewhat swollen, but not to the extent of quinsy: their surfaces will present patches of yellow lymph on a sore-looking surface with ragged edges. The difficulty of swallowing is not so great, nor is the breathing impeded.

In relaxed sore-throat there is the difficulty of swallowing, but in less degree; there is less pain; and on examining the throat the uvula which hangs in the middle will be seen enlarged, pale, and flabby, and perhaps looking like a bladder. The surface of the throat generally is pale and flabby-looking.

Putrid sore-throat consists of mortification or sloughing of the surface, and is most frequently met with in scarlatina (which see).

Diphtheria is a form of putrid or malignant sore-throat. It is marked by the rapidity of its course and the great

depression of the system. The throat, when looked at, is seen to be covered with a greyish-looking secretion.

Causes.—Cold, previous illness, debility, contagion.

Treatment.—For quinsy in the active form, and in persons of full habit of body, an emetic should be taken, followed by a purgative. From ten to twenty leeches should be applied in the cases of adults,—it is not safe to apply leeches to the throats of children. If these do not give relief, a blister-plaster may be applied under the angles of the jaws (see Prescriptions Nos. 1, 2, 3, and *Jalap* in *List of Medicines*).

In the malignant forms of sore-throat the local application, by means of a camel-hair brush or mop of sponge, of a strong solution of nitrate of silver (30 grains to the ounce of water) and the internal use of tonics (see Prescriptions Nos. 8, 12, 13, or No. 4, if aperient be required).

In diphtheria the throat should be mopped twice a day with the solution of nitrate of silver. The mop should be made with a small piece of soft sponge very tightly tied to a stick or piece of whalebone. A warm bread-and-water or linseed-meal poultice should be kept constantly applied.

The most essential part of the treatment in diphtheria is the giving sufficient support in the form of beef-tea and port-wine. There is always a difficulty in getting children to take these. If egg and wine, egg and milk, etc., can be got down, these will not be indifferent substitutes. It should be borne in mind that this support is of more importance than the internal administration of medicines, of which, however, steel is the most suitable. (See *Muriated Tinct. of Iron* in *List of Medicines.*)

The simply relaxed throat is relieved by a gargle of alum, or of port wine, vinegar, and water in equal quantities.

Inhaling the steam of hot water is often very serviceable in simple sore-throat and in quinsy.

In all forms of malignant sore-throat ventilation and warmth must be diligently looked to.

SPASM.

Cramp.

Symptoms.—Painful contraction of muscular parts, not necessarily attended by unconsciousness, as in the convulsive

movements of epilepsy. Either voluntary or involuntary muscles may be affected. *Spasm* occurs in the muscular fibres of the intestines, in the tubes leading from the gall-bladder, and in other internal parts, giving rise to severe and often agonizing pain (see *Gravel* and *Bilious Disorders*). *Cramps* of the voluntary muscles may be excited by spasm of the intestinal canal. There is little difference between the words cramp and spasm, except that the latter expresses a shorter duration than the former.

Causes.—Any depressing agency; mental emotion; painful impressions; irritation of the intestines, etc.

Treatment.—Apply hot fomentations with or without the addition of spirits of camphor or turpentine to the flannels, or apply a mustard plaster. Give an antispasmodic (see Prescriptions 6, 34, and Ether, Chloric Ether, or Spirits of Sal Volatile, in *List of Medicines*), or if this do not speedily give relief, an opiate may be given (see *List of Medicines*).

SPINAL CURVATURE.

Symptoms.—This deformity first appears in a projection, or "growing out," as it is generally expressed, of one shoulder, while the entire side is more rounded and raised than the other. The hip of the opposite side projects. One leg appears shorter than the other, and the patient limps. If the first indications be neglected, or do not yield to treatment, all these conditions become greatly aggravated, the distortion becomes considerable, the functions of internal organs are interfered with, and the general health fails.

Causes.—In many cases, perhaps the majority, this deformity begins in a habit of lolling on one side. It frequently proceeds from want of vigour in the muscular system; from over-exertion, or too prolonged study.

Treatment.—Medicinal treatment is to be directed to giving tone to the muscular system, and invigorating the health. Either steel, quinine, or cod-liver oil, may be given. Aperients if the bowels are confined. In the early stages other measures must consist of shower-bath, with friction by means of a rough towel; sleeping on a mattress; exercise in the open air, short of fatigue; lying in the prone

posture after exercise. Gymnastic exercises that shall bring into full use the weak side. Sea-bathing.

If these means, steadily persevered in for some months, fail to do good, mechanical contrivances must be had recourse to, under medical advice.

STIFF-NECK. *See* RHEUMATISM.

STOMACH, DISORDER OF. *See* INDIGESTION.

STOMACH, PAIN OF. *See* COLIC.

STONE IN THE BLADDER.

Symptoms.—These are usually slow in their approach and indefinite in character. Suspicion of the existence of a stone in the bladder should be excited by increased frequency of occasion to pass water, which is voided with difficulty, and in a broken stream; or the stream being entirely checked, flows again with a change of posture. Stone in the bladder is also attended with pain in the course of the urethra, extending deep in the body, to the neck of the bladder. One of the most common signs of stone occurring in children is, that to relieve this pain in the organ, they acquire a habit of pulling the foreskin, which thereby becomes elongated.

When stone has been present in the bladder for some months or years, it gives rise to chronic inflammation of the bladder.

These are the general symptoms of stone in the bladder: alone, however, they are not conclusive,—they must be confirmed by the surgical operation of *sounding*, which consists of the introduction of a steel rod into the bladder, so that the stone shall be detected by the surgeon's touch and hearing. The operation must be performed by a surgeon.

Causes.—Concretion of earthy matter upon small fragments of gravel or other substances in the bladder. This complaint occurs in morbid conditions of the constitution, following gout, indigestion, etc. It frequently, however, takes place in children in whom these causes cannot have operated; it is, therefore, not always clear to what cause it can be attributed.

Treatment.—The only complete cure for stone is to be sought in the removal of the concretion from the bladder. This can only be effected by a surgeon. If symptoms of chronic inflammation of the bladder be present, relief may be obtained by the means recommended for that disease. Irritability of the bladder, denoted by frequent urgency to pass water, may be allayed by doses of solution of potash, or of tincture of iron, and tincture of henbane (see *Table of Medicines*). Careful dieting should be observed, in order to avoid the causes of indigestion, etc.

STRANGURY.

Retention of Urine; Difficulty of Passing Water.

Symptoms.—Difficulty in voiding urine, accompanying frequent efforts to do so. The urine passes only a few drops at a time, with violent effort. The bladder becoming fuller and fuller, may be felt as a tumour at the lower part of the abdomen. Pressure over the bladder causes great suffering. If not relieved, the patient becomes delirious and comatose, or rupture of the bladder may take place, and the patient die in the greatest agony from the inflammation caused by the urine effused in the abdomen.

Causes.—Irritation from the application of blisters; obstruction to the passage of urine from stone in the bladder, or stricture of the passage; enlargement of portions of the bladder in old age; inflammation of the bladder; and spasms.

Treatment.—In the slighter form, that caused by irritation of a blister, a few draughts of warm water, a few drops of laudanum, or a few hours' patience, will be sufficient.

In the severer forms—those caused by stone or stricture—there is more danger. The patient, if an adult, should be placed in a hot bath; thirty or forty drops of laudanum should be given. If these means do not give relief, after having been employed for several hours, an instrument termed a catheter should be passed through the urethra until it reaches the bladder, when immediate relief will follow. This may be done with advantage while the patient is in the hot bath. One form of retention, or strangury, is commonly met with in old men, in whom a portion of the bladder undergoes enlargement.

This operation should, if it be by any means possible, be confided to the skill of a medical man. If this cannot be, the non-medical operator may, perhaps, be guided by the following brief directions:—

A catheter should be selected having a calibre of about a common writing-quill. It should be carefully inserted into the orifice of the penis, which for that purpose should be drawn forward between the fore and second fingers of the left hand. The curvature of the catheter should be steadily kept looking upwards and backwards. The point of the instrument being gently pressed against the upper surface of the urinary passage, will, after a while, slip into the bladder with a distinct sudden giving way of resistance. *Violence is to be carefully avoided, or the instrument will pierce the surrounding structures, and thereby cause fatal mischief without present relief.*

Many old men require the passage of a catheter twice a day. They easily learn to perform the operation for themselves.

If the retention proceed from inflammation of the bladder, it will generally yield to the treatment for that disease.

STRICTURE, OR RETENTION OF URINE.

Symptoms.—Frequent occasion to pass water; dribbling of a few drops afterwards; slight pain beneath the root of the penis; the stream of water smaller than usual, forked, twisted, or scattered, and requiring efforts to void it. Occasional spasmodic attacks of difficulty in passing water; disturbed sleep; disordered health; depression of spirits, etc.

Causes.—Disorders of the urinary and digestive organs; intemperance, etc.

Treatment.—A hot bath with moderate repeated doses of opium will often relax the spasm that sometimes causes retention of urine; if these fail, a small catheter should be tried until, after gent e pressure, it will pass through the obstruction. The instrument should afterwards be used every three or four days, a larger being gradually employed.

This is as much of treatment as is safe in the hands of a

non-professional person, but if carefully practised it may be of great service.

ST. VITUS'S DANCE. *See* CHOREA.

SUPPURATION. *See* ABSCESS.

TEETH, BLEEDING FROM.

It frequently happens that after the extraction of a tooth the bleeding obstinately continues.

Treatment.—All the clots should be removed from the cavity, and the mouth washed with cold water, and plugged firmly with dry lint; if this do not stop the bleeding the cavity should be again emptied, and then be filled with lint *moistened*, not soaked, with muriated tincture of iron, and firmly pressed down.

TEETHING.

Dentition.

The period at which teething begins varies very much; its average commencement is from the fifth to the seventh month. The two centre teeth of the lower jaw appear first, then the two upper central teeth; these are followed by two more in the front of the lower jaw, and these by the teeth on each side of those already apparent in the upper jaw. These are succeeded, with more or less regularity, by others, to the number altogether of twenty for the first set; viz. in each half of each jaw, two front, one eye-tooth, and two grinders. The process is usually complete by the time the child is two years old, or soon after.

The second set of teeth do not begin to appear until about the age of seven years. It is, however, during the first dentition that indisposition is most frequently met with; and it is to that period that the present remarks refer.

Symptoms.—Cutting the first teeth is very commonly attended with derangement of the infant's health. The child "dribbles;" its mouth is hot; it eagerly bites anything it can lay hold of; it frequently suddenly cries out, as if in pain; its gums are swollen and tender; it is rest-

less, cross; its sleep disturbed; it starts, as if in fright. Fever occurs, with thirst, dryness of the mouth, sickness, disordered bowels, etc.

Teething is a frequent exciting cause of serious diseases of the head, chest, skin, etc., in children thereto predisposed:—for which, see the several disorders under their respective headings.

"Dribbling" often occurs at the age of two or three months, when the teeth are beginning to expand the jaw, and before they reach the gums.

Treatment.—Lance the gums freely, parallel with the *front* edge of the jaw, and down to the bone or tooth. Care must be taken not to cut *behind* the edge of the jaw, lest the incision interfere with the young teeth of the second set, which are developed behind and below the first. The operation is simple and easy, only requiring a sharp knife, (in the absence of a properly-shaped gum-lancet,) and the securing steadiness of the child's head, by placing it upon the operator's knees; while the nurse holds the infant's hands. The incision need not be deep. If the tooth be advanced, the lancet will soon come in contact with it.

The gum-lancing may, however, require repetition. There need be no fear of so doing, as the gum does not harden in the scar, as popularly believed: the rising of the liberated tooth prevents this.

When this operation has been performed, a mild aperient, such as castor oil or magnesia, with a warm bath, will usually suffice to remove the remaining symptoms.

TETANUS AND LOCK-JAW.

Symptoms.—Violent painful spasms of the muscles of the body, limbs, or throat and jaws, producing a state of rigidity which resists every attempt to bend the joints. This rigidity is continuous, and without intervals of relaxation. The mind is unimpaired, and the sensibility of the surface remains in its natural state, or may even be exalted, so that to touch any part shall produce great aggravation of the painful muscular action. Sometimes those muscles only which hold the body upright are affected, and the body is then bent backwards; in other instances the body

is bowed firmly forwards. The trunk is so rigid that it may be raised on to the feet without the joints yielding.

In children, lock-jaw sometimes occurs without spasm of other muscles.

A temporary lock-jaw often occurs from cold, or from inflammation of the ligaments following the extraction of a tooth.

The disease generally begins with severe spasms about the chest and neck, recurring at short intervals.

Causes.—Wounds, scratches, and other injuries. A hot climate predisposes; but it is also met with in temperate climates. It is very rarely indeed known to occur without some wound or injury; sometimes, especially with children, however, it originates from irritating matters in the intestines, or from some morbid condition of the nervous system.

Treatment.—Strong purgatives, such as turpentine and castor-oil, or croton oil; and one or two grains of opium, repeated at regular intervals of from four to six hours. Large quantities of opium are sometimes borne without harm in this disease. But, as the malady is one of a very dangerous character, medical advice should be sought at any inconvenience. Mechanical means may be employed to force open the jaw for the passage of food, etc.

Temporary lock-jaw caused by inflammation of the joint arising from diseases of the teeth, etc. is relieved by leeching, and blistering, and the subsequent application of tincture of iodine.

Temporary lock-jaw, in infants, is to be treated by antacid aperients (see Prescription No. 5).

TETTER.

Herpes; Shingles; Rainbow Ringworm.

Symptoms.—Eruption of small globular vesicles upon irregular-shaped inflamed patches of skin. It is not contagious; is rarely attended with fever or constitutional disturbance, rarely lasts more than two or three weeks, as each vesicle runs its course in from three to ten days, and either dries up, or forms a scab, which speedily falls off.

The characters, seats, and forms which these groups as-

sume, have given rise to several varieties. Thus, shingles is that variety in which the eruption appears upon the body and spreads in the form of a girdle. In this form there is some fever, and burning tingling sensation in the skin.

The common breaking out upon the lip which follows a cold is tetter.

Rainbow ringworm is a curious form of this disease, in which the vesicles may be as large as beans; they are usually grouped in clusters of several smaller and one larger vesicle, and are surrounded by four or five rings of different shades of red, pink, and yellow skin.

Causes.—Derangement of the digestive organs; exposure to cold; local irritants; depressing mental emotions.

Treatment.—This eruption being frequently an effort of the system to cast off some morbid influence, the treatment must be simply palliative, and the diet light and simple, or full, according to the strength of the patient. Gentle aperients, or other means directed to the particular derangement of the digestive organs. Warm fomentation to the eruption; some mild ointment, *e. g.* spermaceti or zinc ointment, when the part is exposed to friction. Lotion of Goulard's extract is also a soothing application (see Prescriptions Nos. 63 and 66).

THRUSH.

Symptoms.—In infants, small white spots, seen upon the tongue, and inside of the lips and cheeks, which may be swollen; the mouth hot; breath disagreeable; suckling painful. The child is fretful, restless, and cries when put to the breast. The seat and private parts become inflamed and excoriated by the acrid nature of the discharges from the bowels and bladder.

Causes.—Debility; indigestion; acidity from improper food; bad air; want of cleanliness; age of infancy.

There is a popular notion that thrush appearing in persons advanced in life, suffering under illness, is always a fatal sign. This is an error, as it is simply an indication of debility, which may occur at any age.

Treatment.—Cream, or white of egg, or borax and honey, or powdered alum, may be smeared on the spots.

Alkaline medicines internally (see Prescription No. 5 and *List of Medicines, e. g.* magnesia). A wet-nurse should be procured, in extreme cases, for infants under ten months. In elder children change of diet must be made with caution.

The excoriations of the lower parts should be treated by finely dusted fuller's earth made into a paste, or thin starch and water; also by zinc powder or zinc ointment.

TIC DOULOUREUX. *See* NEURALGIA.

TONSILS, INFLAMMATION OF. *See* SORE-THROAT.

TOOTHACHE.

Apply a few drops of laudanum, on cotton wool. One or two leeches applied to the gum will frequently prove serviceable. A dose of purgative medicine will also sometimes relieve the pain. (See also *Neuralgia.*)

Toothache may sometimes be prevented by carefully cleaning the teeth and keeping the cavity of a hollow tooth filled with white wax or mastic, previously softened in warm water.

TOOTH RASH. *See* LICHEN.

TONGUE, ULCERATION OF.

Symptoms.—Small white patches, either circumscribed or spreading over the surface of the tongue, which may otherwise be too red. In many instances the ulceration appears only as a rawness of the surface. The tongue is excessively tender, more especially if salt, vinegar, mustard, etc. be taken.

Causes.—Indigestion, and other disorders of the stomach; fevers; decayed or broken teeth with rough edges.

Treatment.—*Locally.* Borax and honey; or solution of chlorate of potash, as a wash for the mouth—in the proportion of a drachm of the chlorate to half-a-pint of water, or lightly touching the ulcers with a stick of nitrate of silver.

Generally. Attend to the condition of the stomach (see *Indigestion*).

TYPHUS. *See* FEVER.

ULCERATION.

Symptoms.—A sore, presenting red points of new substance, or "granulations," which bleed readily when touched, and discharge matter. The edges are smooth, and covered with a bluish semi-transparent skin, which is gradually lost in the granulations. These are the characters of what is usually termed a "healthy" ulcer, disposed to heal readily.

Ulceration has several varieties. Thus, the ulcer may be "inflamed" or "irritable," or "sluggish" or "indolent." In the two former the surrounding skin is red, the edges are irregular, inclined to spread, and the surface unequal, the discharge irritating, and sometimes mixed with blood. The "indolent" ulcer has a pale flabby appearance, and will remain in much the same state for a long time. Scrofulous ulcers are of this character.

A *Slough* is a portion of dead structure which lies on the surface of an ulcer, and has to be cast off by it.

A *Fistula*, or sinus, is an ulcer having a long narrow opening, through which the discharge has to pass. The deep narrow entrance to an abscess is also a *fistula*.

Ulcers may occur anywhere on the surface of the body, or of internal organs. Their most common seat when on the skin, is upon the lower extremities.

Causes.—Local injuries; caustic substances, inflammation; impaired health; obstructed circulation, as where the veins of a limb are varicose.

Treatment.—In the treatment of all forms of ulceration, position is of great importance. The limb should be raised from the ground so as to favour the return of blood by the veins.

For the healthy ulcer, simple water-dressing of lint or rag dipped in cold water, and frequently changed; or spermaceti ointment. If the ulcer be very extensive, a scab may be formed upon its surface by sprinkling it with powdered chalk. In most instances the surface will heal and dry up beneath this scab.

Inflamed ulcers require purgatives and warm-water dress-

ing, or poultices, or rags dipped in Goulard water. Opium internally will relieve pain. In irritable and painful ulcers the local application of decoction of hemlock, or of rags moistened with laudanum and water; or of solution of nitrate of silver (from 1 to 5 grains to the ounce of water); or lotions of sulphate of zinc, or of creasote or carbolic acid lotion (see Prescriptions Nos. 58, 59, 62, 63).

In the indolent and fistulous ulcer the same stimulant applications may also be applied. Tonics and liberal diet should be taken in the latter cases.

As it is frequently impossible that strict rest, and the required posture, can be observed, if the ulcer be on the leg the circulation in the limb may be favoured and supported by bandaging the leg carefully with a calico bandage from the toes to the knee; or by surrounding the limb to the same extent with strips of adhesive plaster, leaving the space of the ulcer uncovered, in order that ointments or other applications may be changed as often as needed.

UVULA, RELAXED. *See* SORE-THROAT.

VACCINATION. *See* SMALLPOX.

VOICE, LOSS OF. *See* APHONIA.

WARTS.

Causes.—These are often not to be discovered. Sometimes they can be traced to local irritation; such as want of cleanliness, contact of foreign substances, etc. They grow without any of these causes. It is a popular error to suppose that they can be propagated by their blood.

Treatment.—Cut off the top, and touch daily with strong acetic acid, or nitrate of silver, removing from time to time the hardened crust by means of a knife.

WHITES.

Leucorrhœa; Fluor Albus; Weakness.

Symptoms.—Discharge of a white, or yellow, matter, with pain in the back and hips. This complaint is mostly

a symptom of debility. It is often erroneously looked upon as the cause, instead of the result, of constitutional derangements.

Causes.—Profuse menstruation; miscarriages; diseases of the internal parts; over-exertion; luxurious living, etc.

Treatment.—When it is associated with debility, astringent injections may be used (see Prescription No. 62; also Alum, Oak Bark, etc., in *List of Medicines*), and steel or other tonics taken internally, with a full diet, including bitter ale, wine, etc.

If it occur in a full habit, and is supposed to proceed from an inflammatory condition of internal parts, saline aperients should be given, and warm hip-bath used every night; a low diet should be observed under these conditions.

By careful attention to the general health these discharges will generally subside.

WHITE LEG.

Inflammation of the Veins of the Lower Extremity.

Symptoms.—At an uncertain interval after childbirth, the patient experiences shivering, sickness, rapid pulse, sense of prostration, thirst, and furred tongue. Pain is felt in the region of the womb, and in the course of a day or two extends to the groin and upper part of the thigh, which are tender when pressed. The tenderness may be traced in a narrow line along the inner side of the thigh down to the back of the knee-joint, and down the calf of the leg. The skin of the leg and entire limb becomes tense, white, and shining: hence the name of the malady. The impression of the finger is retained for some seconds after its pressure has been removed. Movement of the limb becomes painful.

These symptoms vary greatly as to degrees of severity and as to duration. In some instances they may all have disappeared in a few weeks; in others they may last for months, and prove a source of much pain and difficulty in walking.

Treatment.—One or two dozen leeches should be applied to the groin, followed by fomentation and poultices. Simple saline mixture (see Prescription No. 2; the tartar

emetic being omitted if the pulse be feeble). Ten grains of Dover's powder to be given at bed-time to allay pain. The bowels should be regulated by four or five grains of blue pill and a dose of castor oil, or a rhubarb draught. The diet should be light and unstimulating.

As the inflammation extends down the limb, the occasional application of from three to six leeches at different points will be found serviceable.

The entire limb should be enveloped in flannel wrung out of warm water, and then enclosed in thin waterproof material. The best kind is the thin gutta-percha tissue. This application to be changed as often as required to keep the limb warm.

When all the inflammatory symptoms have subsided, the stiffness and immobility of the limb may be relieved by the use of stimulating liniments.

WHITE SWELLING. *See* KNEE, INFLAMMATION OF.

WHITLOW.

Symptoms.—Painful swelling at the root of, or under the nails, quickly forming a small abscess. The toughness of the nail, by compressing the matter, causes great increase of pain.

Causes.—Bruises; pricks; constitutional disorder, etc.

Treatment.—Warm poultices. As soon as matter forms and points (see *Abscess*), it should be let out by means of a puncture with sharp knife or lancet. The poultice should be continued afterwards. The hand should be kept raised in a sling.

WORMS.

Symptoms.—The presence of worms in the intestines is not a disease of itself, as commonly supposed, but is simply a result or symptom of derangement of the bowels or of their contents. The so-called symptoms of worms are common to most disorders of the bowels, and are very indefinite. Among them are itching at the fundament, pain in the stomach, capricious appetite, picking the nose, etc. The only proof of their presence is seeing them.

There are several kinds; viz. 1. The thread-worm, oc-

curring in great numbers, and resembling small fragments of white thread. 2. The common round worm, resembling in some degree an earth-worm. 3. The tape-worm; white, flat, jointed, often extending to many feet in length.

Causes.—Indigestion and disorder of the bowels; indigestible food; cold and damp situations.

Treatment.—Purgatives (see Prescription No. 38); or santonin, for the smaller varieties.

The irritation caused by thread-worm may be removed by clysters of decoction of aloes (see Prescription No. 72).

Tape-worm requires the internal use of turpentine (see *List of Medicines*).

Care and attention as to diet are necessary to ensure a cure.

WRY-NECK. *See* STIFF-NECK.

SECTION II.

ACCIDENTS.

ACCIDENTS.

SHOCK OR CONCUSSION.

Symptoms.—Any serious accident, or severe injury, causes a *shock* to the nervous system, depressing its energies and interfering with the vital functions. The patient in that state presents a cold pale surface; his consciousness is suspended, or partially so; he has a feeble, sighing kind of breathing; and the pulse is small and feeble. The condition is similar to that of fainting, or collapse. There is often sickness; and in children convulsions frequently occur in this state.

This collapsed state may last only a few minutes, or may continue for various lengths of time up to a couple of days. Reaction then takes place, and in the majority of instances recovery ensues. If, however, serious injury to any vital organ have happened, a state of morbid excitement may follow. Where the injury to vital organs is still more serious no reaction will follow, but the patient sooner or later sinks.

Treatment.—When called to a person in a state of collapse from the shock of an accident, a small quantity of stimulant should be given, such as a little wine-and-water, or brandy-and-water, or a few drops of ether or sal-volatile in water; the surface of the body should be warmed by blankets, hot bottles to the feet, legs, etc. The head should be kept in a line with the body, which should be laid in the recumbent posture. Let the patient have plenty of fresh air. *In all such cases abstain from bleeding in any form.*

For the particular treatment of special injuries, see the several headings in the present section.

ANIMATION, SUSPENDED. *See* HANGING, DROWNING, SUFFOCATION, OR COLD.

ARTERIES, BLEEDING FROM.

This is known by the blood flowing by jerks, and by its bright scarlet colour; whereas the blood from veins is of a dark purple colour, and flows in a continuous stream.

Treatment.—Pressure of the finger over the wound will, if the artery be small, stop the bleeding after a short time.

If the bleeding recommences when the finger is removed, pressure may be made by twisting a handkerchief twice round the limb, over the wound; place a stick under the knot and give it several turns, so as to make firm pressure, thus:—

The pressure should only be sufficient to stop the bleeding; beyond that it will bruise or injure the parts.

Or, a piece of rag several times folded, and tied down with a broad piece of tape, or bandage, thus:—

If the bleeding proceed from a wound of an artery in a limb, and is not checked by either of the above methods, the current of the blood in the limb may be checked by pressure upon the main artery. Thus, if it be in the arm, firm pressure should be made downwards in the neck, just above and behind the collar-bone. This pressure may conveniently be made by means of the handle of a door-key wrapped in a few folds of linen.

If the blood flow from a wound in the hand, it may be considerably checked, or altogether arrested, by bending the elbow-joint, and firmly pressing the lower against the upper arm, so that the hand shall be able to touch the shoulder.

If the wounded artery be in the lower extremity, the flow of blood can be controlled by firm pressure at the

groin, where the large artery may be felt pulsating as it passes over the bone.

While the circulation is thus controlled, the open mouth of the artery, in the wound, should be taken hold of by a pair of fine-pointed forceps, and a piece of silk, or strong thread, should be then firmly tied round it near the forceps. Care must be taken not to cut the artery through in tying the ligature. One end of the ligature should be left hanging out of the wound, which should then be covered with lint or rag wetted with cold water.

If the artery divided be small, and not conveniently accessible for either pressure or ligature, a small piece of lint soaked in muriated tincture of steel, diluted with an equal quantity of water, or touching it with stick of nitrate of silver, or lint moistened with spirits of turpentine, will frequently arrest hæmorrhage.

If none of these means be at hand, a piece of iron-wire made black-hot, lightly and rapidly applied, will stop the bleeding. This plan appears formidable, but it is very efficacious, and is not so painful as might be thought.

Bleeding from veins is easily stopped by pressure.

At the same time that these means are employed, it will be necessary to keep the patient as tranquil as possible, and give light unstimulating diet. If fainting take place, the patient should be laid on the back with the head low, and small quantities of wine or wine-and-water very carefully administered.

BITES OF LEECHES.

Press steadily for some time with the finger upon the orifice, previously covered with two or three folds of lint or rag.

Or, cut a small circular piece of glazed visiting-card, wipe the leech-bite as dry as possible, with pressure; then quickly, before the blood has time to flow again, press down the piece of card and hold it on for some time.

Matico leaf firmly pressed on will also often stop the bleeding.

Ice, or ice-cold water, is also useful.

If these do not avail, apply a little muriated tincture of iron on lint or cotton-wool;—or touch the orifice with

nitrate of silver, or with red-hot wire ;—or pass a fine needle horizontally through the bite, and then twist a piece of fine silk several times round the needle, enclosing the bite by a figure of eight.

BITES OR STINGS.

1. *Of Insects, as Bees, Wasps, etc. etc.;* 2. *Of Snakes, Dogs, etc.*

1. Bites of Insects.

These, strictly speaking, are simply *poisoned wounds*, and not what is generally understood by the word venomous or deadly.

The *symptoms* produced will vary according to individual constitution, state of health, etc. Generally speaking, they are slight and confined to the part. The swelling may, however, extend over a whole limb, or even over the whole body, and be attended with sickness, faintness, etc.

Treatment.—If a sting be left in, it must be extracted with forceps or tweezers. The best local application is hartshorn or sal-volatile. If inflammation follow, it must be treated with cold lotions or poultices.

If the effects produced be of the more serious character named, stimulants must be given freely. Brandy in hot water; ether; sal-volatile. (See *Table of Doses.*)

A ligature should be tightly tied round the limb above the bite or wound, while surgical aid is procured. At the same time nitrate of silver or caustic potash may be applied to the wound.

2. Bites of Snakes, Dogs, etc.

In the case of a snake-bite of a venomous kind, *e. g.* cobra, the effects are so rapidly developed that only the use of instantaneous and energetic means offers any chance of saving life. The adder bite is occasionally followed in a short time by serious consequences.

These are only to be averted by the frequent administration of strong stimulants, such as teaspoonful doses of sal-volatile in water every five or ten minutes, to an adult, and in reduced doses if a child. In some cases of cobra bites in India, life has been saved by the administration of a teaspoonful of *eau de luce* (a solution of ammonia with oil of amber) every five minutes, while the fearful state of depression continues.

The explanation of this mode of treatment is simply that the poison acting with lightning-like rapidity, there is not time to remove it from the point at which it has been inserted, before it is traversing the whole course of the circulation. All that is left to us to do is to uphold the vital energies of the victim until it shall have lost its force, or been expelled from the system. How either may happen we know not. We may be thankful that life can sometimes be saved under such imminent danger.

For dog-bites, apply a ligature tightly above the spot until strong caustic can be applied, or the part be removed by incision. If the bite be only superficial, the application of a stick of lunar caustic will suffice. In deeper bites the stick of lunar caustic (nitrate of silver) may be freely applied as soon as possible, if surgical aid cannot be procured to remove the part.

Hydrophobia seldom occurs. Compared to the number of dog-bites, its occurrence is as nothing. This fact, however, should not lead to neglect of the means above-mentioned, but should remove those alarming apprehensions which alone may disorder the nervous system and lay the foundation of serious symptoms.

Should hydrophobia come on, the fullest doses of opium and chloroform should be given (see *List of Medicines*).

BONES, BROKEN.

When a thigh or arm is broken, there is generally little difficulty in finding it out. If there have not been a distinctly perceptible snap, there will be the disfigurement and inability to use the limb, which will shortly lead to the discovery of the nature of the accident. If the broken bone be moved gently, there will be felt and heard a grating or *crepitation* of the ends upon one another. If, however, ribs or smaller bones be broken, the fracture may not be so readily detected.

In all accidents of this kind, the first object is to remove the sufferer as quietly and carefully as possible to his home, or wherever else may be thought desirable. Unless care be taken in so doing, a simple fracture of the bone may be seriously complicated, and converted into a compound fracture; *i. e.* rough handling may force the broken ends of the bone through the muscles and skin.

In order to avoid this, if the sufferer has to be moved any distance, less or more, he should be laid upon a door or shutter, or any board large enough to carry him. This should be placed on a level with the patient, so that it will scarcely be required to raise him in placing him thereon. A hand conveyance of this kind is preferable to a horse-carriage, as less jolting is occasioned thereby. The limb should be placed and supported as nearly as possible in its natural direction, in order to prevent the broken ends of the bone piercing the skin before it is properly set.

Treatment.—*General rules.*—The first point is to restore the broken bones as nearly as possible to their natural position. This must be done by steadily and firmly drawing the broken bones in opposite directions, so that the ends may slip into contact and resume their natural position.

Certain articles are required in order to keep the bones in place. These may be procured generally with a little trouble and contrivance. They are—linen bandage three or four inches wide, and several yards in length; soft pads or cushions of various lengths and breadths, made from linen stuffed with tow, wool, chaff, or feathers; splints or pieces of wood about four or five inches broad, a quarter of an inch thick, and of lengths varying with the length of the limb; if these cannot be obtained, bundles of straight straw or strong reeds folded or quilted in cloth will answer the same purpose.

For the first three or four days the broken limb should not be tightly bound up in these splints, bandages, etc.; but they should only be so applied as to keep the bones in place, at the same time that the inflammatory swelling which ensues may be watched and treated with the cold-water dressing; as the swelling subsides the bandages may be tightened.

The symptoms and treatment of fractures of particular bones are as follows:—

NOSE.

Treatment.—Replace the bones as nearly as possible in their natural position. If there be any small splinters of bone, they should be removed by the forceps.

Cloths dipped in cold water should be constantly applied, to reduce the swelling and arrest bleeding.

Wounds may afterwards be brought together by sticking-plaster.

RIBS.

Symptoms.—Fracture of these may be detected by gentle pressure, or by the broad flat hand laid over the painful part during breathing: pain is occasioned, and grating of the bones may be felt. The detection of the grating sound, in the case of broken ribs, often requires some time and attention.

Treatment.—A linen roller, six inches broad, should be tightly bound several times round the chest, so as to limit the movement of the ribs in breathing. If the edges of the bandage be stitched in several places, it will be less likely to slip.

Rest in bed for a few days will generally be sufficient treatment in addition to the above. Pain may be allayed by Dover's powder or laudanum.

If severe pain and distress in breathing arise—see *Pleurisy*.

COLLAR-BONE.

Symptoms.—Fracture of this bone is rendered evident by the prominence that may be observed at the seat of fracture. This will be the more readily detected when compared with the bone of the opposite side. A grating feeling and pain are also felt when the shoulder is moved.

Treatment.—Fix the shoulders back by a bandage crossed behind both. Place a roll or pad in the armpit—a pair of man's stockings folded will answer the purpose. In the next place, pass a few turns of a bandage round the arm above the elbow; then carry the remainder of the bandage several

times round the chest, so as to bind the arm to the body. This done, raise the elbow and arm in a sling made by a handkerchief, and tie it over the shoulder of the sound side. By these means the bone will be restored to its natural position, and, by wearing the bandages about a month, will firmly unite.

If these means are not at hand, the lying perfectly still and flat on the back will maintain the bones in their proper position.

ARM, ABOVE THE ELBOW.

Treatment.—If the length of the arm be diminished, or its form distorted by this accident, the bones must first be brought into their proper position. One person should steady the shoulder, another should steadily pull at the elbow, until the bones can be felt to have taken their proper places. A towel passed round the elbow will form a fixed point in making this extension. When the bones are in place, four splints the length of the arm, lined with four soft pads, should be placed around the arm, and be made firm either by straps or broad pieces of tape. The splints must not be tightly fixed for the first few days, but should be so loose that the state of the swelling may be watched. In the event of this, and pain being considerable, it will be advisable to reduce the excessive inflammation by means of cold lotions.

Before the splints are fixed, the arm should be well washed with soap and water, and powdered with starch-powder. The same should be done whenever it may be requisite to move the splints, which need not be done for ten days or a fortnight.

The arm should be bent and supported in a sling.

The patient should be confined to the bed for a fortnight at least. No movement of the arm should be allowed un-

der five weeks, and movement should then be very gradually and gently resumed.

FOREARM, OR THAT PORTION BETWEEN THE ELBOW AND WRIST.

When both bones are broken, the injury is easily discovered. Sometimes only one bone is broken; the accident is then not so apparent, because the other bone acts as a sort of splint, and prevents the obvious deformity that attends fracture of both bones.

Treatment. — The bones, if displaced, should be restored to their proper position by one person firmly holding the upper arm and elbow, while the forearm is put on the stretch from the wrist and hand by another person.

Two large well-padded splints should then be laid, the one on the front, the other on the back of the arm, and then, being tied by tapes, the entire arm should be supported by a sling while in the upright or sitting posture.

The splints must be worn for about a month. The precaution is to be observed not to tighten the splints if there be swelling and inflammation.

FINGERS.

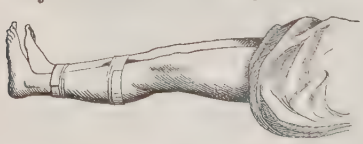
Treatment.—A thin board should be cut into the shape of the hand; this being padded, the hand should be laid upon it, and it may be covered by another well-padded splint of a shape corresponding to the hand. It should be supported in a sling, and should be worn at least ten days.

THIGH.

Fracture of the thigh-bone may be detected by the de-

formity and by the uselessness of the limb; by the inability to stand upon it, or raise it from the ground.

Treatment.—The readiest and simplest plan for the treatment of this accident by non-professional persons is that recommended by Mr. South in his 'Household Surgery':—"The patient must be placed on his back upon a firm mattress, laid on a board resting on the bed-frame, which is better than on the sacking, as that sinks with the weight of the body when resting on it for some weeks. Two thick pads are to be made, of sufficient size to cover, the one the whole of the inside of the sound knee, and the other the inside of the ankle of the same limb. Both limbs must now be laid close together, in the same straight line as the body, resting on the heels, with the toes right upward; and, in doing this, care must be taken that the calves of the legs rest flat on the mattress. Thus far done, the body must be kept immovable by one person, who grasps the hips with his two hands. A second person then takes hold of the broken limb with both hands, just above the ankle, and gently and steadily draws it down, without disturbing its position; whilst a third places the knee-pad between the two knees, and the ankle-pad between the ankles. The gentle pulling being continued, the sound knee is brought close to that of the broken limb, but a little above it, so that it rests against the jutting inside of the joint, and then, being kept close together, a pad about



as broad as the hand must be turned round both legs, directly below both knees, and around this a roller about three yards long must be tenderly, carefully, and tightly wound, so as to prevent one knee slipping from the other. A strap and buckle will serve the same purpose; or, in want of roller and strap, a handkerchief may be passed twice round and tied, care being taken not to make the knot opposite the hard parts which mark the place of the two leg-bones; for, if put there, it will be likely to cause very uneasy pressure. Both ankles are next to be tied together in like manner, care being taken that that of the sound side is

above that of the broken limb. A small pad is now to be placed between the insides of both feet, to guard them against the pressure which is made by binding both feet together; and this completes the whole business."

The usual mode of treatment is much more complicated, and requires a surgical hand. By the above simple plan as good cures have been effected; it is therefore the best adapted for those to whom the present work is addressed.

KNEE-CAP.

This accident is caused either by a fall, or by the violent muscular effort made in preventing a fall, or a slip in walking. Standing on the limb is impossible. If the knee be examined, a depression will be felt where the prominence of the bone should be, above and below which may be felt the two broken pieces of the bone.

Treatment.—The patient must lie on a bed, with shoulders and head raised, and the thigh and leg being kept in the same straight line are to be elevated to the highest position that can be borne. The two pieces of bone will be brought as nearly as possible together by these means. There is generally considerable swelling; this must be treated by cloths dipped in cold water. At the end of a week tie a couple of handkerchiefs, one round the limb above the upper fragment, the other below the lower, without altering the position above directed. The two handkerchiefs may then be brought closer together by tapes passed from one to the other, and as they approach each other the two pieces of bone will be brought nearer. They cannot be brought actually into contact, but union will take place by a strong new ligament passing from one piece of bone to the other.

It is requisite to maintain this posture and bandaging for a month. After this, it will take some time of gradual practice in swinging the leg backwards and forwards upon the edge of a table, before the muscles regain their power of supporting the limb. When the patient is able to raise his leg to a line with his thigh in this manner, a weight of a pound or two should be attached to the foot, and the same practice be continued until he can raise the leg easily to the level of the thigh.

LEG, BELOW THE KNEE-JOINT.

There are two bones in the leg; if both, or the larger bone, be broken, the injury is apparent enough; if only one, and that the smaller or outer bone, it is not so readily discovered. The larger bone forms a strong splint, and the patient can stand upon it, although the other bone be broken and cause pain, etc.

Treatment.—If only the small bone on the outer side of the leg be broken, complete rest of the limb for a day or two. The leg should then be bandaged with egg and flour, as directed below.

If both, or the larger bone be broken, lay the leg on its outside upon a pillow for four or five days, while by cold lotions, etc., the inflammation and swelling are reduced. At the end of this time, the bones being placed in position, a splint may be placed on each side of the leg, well padded, and the ankle protected from pressure by a hole being cut in the lower end of the outside splint. Or strips of linen smeared with a thickish paste of white of egg and flour well mixed, or of thick gum and chalk, may be laid over the limb in all directions. In the course of twenty-four hours this will have dried and hardened into a firm case, which will so protect the limb that, in four or five days, the patient may quit the horizontal posture, and make some little use of the limb.

This plan, however, can only be used where the skin is not broken and the bone is fractured in such a manner that the opposite ends can be brought into contact so as to maintain their position. If obliquely broken the ends will slip off each other; it is then preferable to have recourse to splints, as they admit of daily examination of the state of the bones without disturbing them.

In placing the leg to set the bones and apply splints or starch-bandage, etc., observe to keep the great toe in a line with the knee-cap.

If neither of the above methods can conveniently be put in practice, a bundle of reeds or straight straws may be made to serve as splints.

A bag of sand forms a very convenient pillow, in which the leg may be placed on its back, after it is properly put

up in either of the above ways; it will then receive support on all sides.

FOOT.

Fractures of these bones should be treated on a similar plan to that of fractures of the bones of the hand. A splint, made to pass up the back of the leg, and having a footboard fixed thereto nearly at a right angle, should be padded with soft cushions; and the bones being as nearly as possible adjusted to their natural position, the foot should be placed upon it, and be maintained in its situation by several turns of a bandage. The foot should be kept raised from the ground for two, three, or four weeks, according to the extent of the injury.

BONES, BROKEN, WITH WOUNDS.

Compound Fractures.

When, in addition to a bone being broken, the soft parts over it are torn or otherwise wounded, it is termed a *compound fracture*. Such accidents are dangerous in proportion to the extent to which the parts are torn or bruised. If a joint also be opened, it is a still more serious matter. This class of accidents is especially one in which effort should be made to obtain surgical advice. Failing this, the following directions will point out the principles of treatment:—

The edges of the wounds should be brought together slightly by strips of sticking-plaster. If any loose pieces of bone should be visible, and can be detached by a pair of forceps, they should first be removed. The rest of the limb should be kept cool with cloths dipped in cold water, to be moistened as often as they dry. The air should be admitted to the limb, and the bedclothes raised so as not to press upon the injury;—both these objects may be attained by a bandbox, its top and bottom being cut off, or wooden and wire frame, arched over the limb or part.

A light diet and saline medicines (see Prescription No. 1) should be given. Pain should be relieved by opium at night

(see *Table of Medicines*). If the wound heal in a few days, the case is then to be treated as one of simple fracture.

In many cases fever occurs in the course of three or four days. The treatment in this stage must not be lowering; a profuse discharge is soon set up, and the powers of the constitution must be supported by a nutritious diet. Stimulants may be allowed when the patient has previously been accustomed thereto, or if the powers of the system flag and a typhoid state is threatened.

The wound, when extensive, often requires several weeks before it is filled up by the growth of new flesh. During this process of growth the wound should be dressed with the water-dressing, *i. e.* lint soaked in warm water, and covered with oil-silk to prevent its evaporation. This should be changed as frequently as required to keep the wound clean, and to sponge away accumulation of discharge.

In such cases as the above (when a surgeon is not within reach), the limb should be placed as nearly as possible in the position directed for a simple fracture; the splints being so arranged as to permit of the dressings with the least possible disturbance of these. The pads and splints should be covered with oil-silk or other waterproof material, so that they shall not be soaked in the discharge. The greatest cleanliness is required.

BRUISES.

Symptoms and Causes.—Swelling and discoloration of a part from violence applied; the colour undergoing changes from black to green and yellowish-green, in proportion as the blood effused beneath the skin is absorbed. If a great quantity of blood be effused, inflammation and abscess may follow.

Treatment.—Apply warmth and moisture by sponging, poultices, or lint or flannel wetted with tincture of arnica and water. Rest of the limb or part injured, and an elevated posture to be maintained. As recovery takes place, the limb is to be very carefully and gradually made use of, especially if a joint have been bruised, otherwise serious inflammation and permanent disease may be excited.

When the end of a finger or toe is crushed, the blood

effused under the nail sometimes causes great pain. By scraping down the nail at one part with a knife or piece of glass, it may be made so thin that it will bulge out: a slight puncture will then let out the fluid part of the blood, and give speedy relief to the pain.

BURNS AND SCALDS.

Symptoms.—Burns, the effects of heated solids, destroy more deeply than scalds, the effects of heated liquids; the latter, however, are usually the more extensive. In scalding, blisters are usually formed. In burning there may be blisters, or the skin may be charred and its structure destroyed. The latter are, therefore, the more severe injuries. The danger is in proportion to the extent of the skin destroyed, and the nature of the part injured.

Treatment.—In severe cases, if the burn have been occasioned by the clothing taking fire, the clothes are to be immediately removed, or cut off as quickly as possible, taking all possible care *not to break any blisters*. Those portions that stick should not be disturbed. The rest of the body should be kept warm. If there be shivering or faintness, warm wine-and-water should be given.

In either severe or slight burns or scalds, the most correct principle to guide the selection of applications is to keep up the heat of the part at first, and bring it down gradually to the ordinary temperature. The first and most important object is to protect the surface from the action of the air. For this purpose flour, cotton-wool, or wadding, are the readiest means. In slight cases these alone will be sufficient, and may be left on for several days. In severer and more extensive injuries the parts should be covered with strips of linen or lint spread over with ointment, consisting of equal parts of yellow basilicon and spirits of turpentine.

The dressing should be changed once in twenty-four hours, or a liniment, as follows:—

Lime Water ..... 1 part;
Linseed Oil ..... 2 parts;

Well shaken together, and applied by lint or linen soaked in it.

Cold applications are objectionable, as the relief they afford is but temporary, while the reaction which follows their use augments the pain and inflammation; and in ex-

tensive burns or scalds produces a dangerous depression of the system.

The water contained in the blisters is to be carefully retained, as it affords protection to the tender skin beneath. If the surface around the blister should become inflamed, the water may be let out of the blister by the prick of a needle. The skin which forms the blister should be carefully preserved in contact, as a covering to the skin below.

If the burn have caused destruction of the true skin, which remains as a dark char or ash, bread poultices may be applied till the slough separates.

When the inflammation subsides, and the surface begins to discharge, it should be dressed with Turner's cerate or zinc ointment twice a day. The surface from which the discharge proceeds often grows very unequally, and forms what is commonly called '*proud flesh*,' *i. e.* exuberant granulations. These may be checked by gently touching them with a stick of lunar caustic. Care is to be taken to keep the tender surfaces separately dressed, lest parts in contact should grow together.

There is often great depression of the nervous system as the consequence of extensive burn or scald. Stimulants are then required, and a full nourishing diet. Severe pain may be relieved by opiates, such as laudanum or Dover's powder, at bed-time, or at intervals during the twenty-four hours (see *Table of Medicines*).

During the process of cure the large scars contract the skin, and, unless guarded against by gentle movement, or keeping the limbs extended, the limbs may become deformed and disabled.

BURNS FROM CHEMICAL CAUSTICS.

Oil of Vitriol, etc.

Wash the parts well with water, or soap and water in the case of strong acids; then treat as common inflammation, with water-dressing, etc.

CHOKING.

Hard Substances in the Gullet.

Symptoms and Causes.—Quickly and carelessly eating or bolting large pieces of food sometimes causes the

food to lodge in the gullet, and produces suffocation by pressing upon the upper part of the windpipe: or spasm of the gullet may cause choking. Fish-bones, fruit-stones, pins, etc., frequently lodge in some part of the throat. It very often happens that a crumb or other small particle lodges behind the root of the tongue, and causes great irritation and coughing. In these cases it is a mistake to thump the back; the best plan is to drink sips of cold water, and as much as possible restrain the cough, as by keeping the parts quiet they will free themselves of the irritant.

Treatment.—The fore-finger should be passed down the throat to reach the substance, and hook it up. If it be beyond reach of the fingers, a large piece of bread crumb should be partly masticated and swallowed, washing it down with water. This will often dislodge the bone or pin, and carry it into the stomach, where it may be left to pass through the bowels. It is not advisable to give purgatives to expel these or other hard substances accidentally swallowed; they are more likely to pass safely through the intestines if left to be sheathed by their contents.

Anything that is not dislodged in this manner requires the use of a probang, or thin piece of whalebone about two feet long, having at one end a piece of sponge, about the size of a hazel-nut, firmly tied on. This is to be greased before use, and then passed steadily down the back of the throat until the obstruction gives way, when it should be gently withdrawn. This operation, however, ought to be entrusted to the hands of a surgeon if possible.

COLD.

Frost-Bite, etc.

Intense cold produces drowsiness, paleness of surface, feebleness of pulse, and death.

If a part of the body, as the nose, ears, toes, be exposed to severe cold, they are very prone to become frost-bitten; they turn of a dead white colour, then livid and shrunk. If not carefully treated, mortification will follow.

Treatment.—Rub the part with snow until reaction is established; then with cold water. The patient should very gradually be exposed to warmth, lest the reaction should be too great. Stimulants may afterwards be very gradually given.

CUTS. *See* WOUNDS.

CUT-THROAT. *See* WOUNDS.

DISLOCATIONS.

The general indications of dislocation are, deformity or alteration in the form of the joint, together with change in its length, and impairment of the movements of the limb. It is in many cases extremely difficult, even to a surgeon, to discover a dislocation. The more common forms are detectible by a non-professional person.

DISLOCATION OF THE JAW.

The nature of this accident is evident from the wide-gaping of the mouth, and impossibility to close it; the ludicrous character of the deformity, and of the attempts to speak.

Treatment.—Steady the patient's head against the back of a chair or a wall.

The operator should wrap a handkerchief or napkin round his thumbs. Place the thumbs on the jaw as far back as possible in the mouth, beyond the teeth. Then press downwards and backwards, at the same time that with the fingers the chin should be raised. The bone will then slip into its place with a snap. Or, a piece of wood or cork, placed between the teeth on each side, may be used as a fulcrum.

DISLOCATION OF THE ARM OR SHOULDER-JOINT.

Symptoms.—The arm is lengthened, the shoulder flat-

tened, and, when compared with the opposite side, a de-

pression will be found under the point of the shoulder. The round end of the arm-bone may be felt in the armpit.

Treatment.—The patient should lie on his back on the floor. The operator should sit on the floor in the opposite direction, so that his feet may come in contact with the shoulder of the patient. Then, taking off his boot or shoe, let him place his heel in the armpit of the dislocated joint; if on the right side, the heel of his right foot, and *vice versâ*. Then let him grasp the patient's wrist and steadily pull the arm, while he makes pressure with his heel in the armpit. If he can manage to distract the patient's attention, the reduction of the bone will more easily be affected. When the bone slips into its place a snap will be heard, or a jerk felt, by the operator.

DISLOCATION OF THE HIP.

Symptoms.—These vary with the direction in which the head of the thigh-bone slips. Generally the limb is shortened and turned inwards; sometimes it is lengthened and turned outwards. On comparing the two sides of the body, the prominence of the hip will be found wanting on the injured side.

Treatment.—The simplest plan is somewhat similar to that recommended for dislocation of the shoulder-joint. The operator should lie down on the ground in a contrary direction to that of the patient, and, taking off his boot, let

him place his foot between the patient's thigh, and, grasping the ankle-joint, make a steady pull upon the limb until the bone slips in. If the attention of the patient can be

distracted at the moment, the power of the muscles will be more readily overcome.

Should this plan not prove successful, it may be necessary to apply greater force. The top of a round towel may be passed round the dislocated joint and between the patient's thighs, and fastened to some firm point behind him, and in a line with his body, the patient lying on a bed or sofa. By this means the body becomes the fixed point. Another towel should then be fixed on the limb above the knee, and strong steady traction exerted upon the limb. It is very important that the force be steadily applied.

The nauseating effect of half a grain of ipecacuanha powder, given every ten minutes, will assist the operator in overcoming the action of the muscles, which constitutes the obstacle to the reduction of the limb.

DISLOCATIONS, COMPOUND.

If, in addition to the dislocation, the bones be broken, or a portion be forced through the skin, the dislocation is *compound*, and has a very serious character. In proportion to the extent of surface of the joint, and of the injury done to the soft parts, is the danger of this accident.

Treatment.—The bones should be restored as nearly as possible to their ordinary position, as in the case of simple dislocation. If any arteries be wounded, cold sponging should be used. If this do not stop the bleeding, the end of the artery should be taken up by a hook or forceps, and then tied with a strong thread. When the dislocation has been reduced, the wound should be dressed with wet lint covered with oil-silk. If inflammation should take place, wet cloths must be kept on the adjoining parts. The strictest rest of the limb must be enjoined.

These cases necessarily require confinement to bed for some time, and will call for medical treatment according to the degree and character of the febrile symptoms, or degree of depression, as in compound fractures.

DROWNING.

The following instructions, compiled by the Royal National Life Boat Institution, are the result of a wide field of experience :—

"*Restorative Treatment.*—Send immediately for medical assistance, blankets, and dry clothing, but proceed to treat the patient instantly on the spot, in the open air, with the

INSPIRATION.

EXPIRATION.

DR. MARSHALL HALL'S METHOD OF INDUCING RESPIRATION.

face downwards, whether on shore or afloat; exposing the face, neck, and chest to the wind, except in severe weather, and removing all tight clothing from the neck and chest,

especially the braces. The points to be aimed at are—first, and immediately, the restoration of breathing; and, secondly, after breathing is restored, the promotion of warmth and circulation. The efforts to restore breathing must be commenced immediately and energetically, and persevered in for one or two hours, or until a medical man has pronounced that life is extinct. Efforts to promote warmth and circulation, beyond removing the wet clothes and drying the skin, must not be made until the first appearance of natural breathing. For if circulation of the blood be induced before breathing has recommenced, the restoration to life will be endangered.

"*To Restore Breathing.*—Place the patient on the floor or ground with the face downwards and one of the arms under the forehead, in which position all fluids will more readily escape by the mouth, and the tongue itself will fall forward, leaving the entrance into the windpipe free. Assist this operation by wiping and cleansing the mouth. If satisfactory breathing commences, use the treatment prescribed below to promote warmth. If there be only slight breathing or no breathing, or if the breathing fail, then, to excite breathing, turn the patient well and instantly on the side, supporting the head, and excite the nostrils with snuff, hartshorn, and smelling salts, or tickle the throat with a feather, if they are at hand. Rub the chest and face warm, and dash cold water, or cold and hot water alternately, on them. If there be no success, lose not a moment, but instantly—to imitate breathing—replace the patient on the face, raising and supporting the chest well on a folded coat or other article of dress. Turn the body very gently on the side and a little beyond, and then briskly on the face, back again, repeating these measures cautiously, efficiently, and perseveringly about fifteen times in the minute, or once every four or five seconds, occasionally varying the side. On each occasion that the body is replaced on the face, make uniform, but efficient pressure, with brisk movement on the back between and below the shoulder-blades or bones on each side, removing the pressure immediately before turning the body on the side. During the whole operation let one person attend solely to the movements of the head and of the arm placed under it. Whilst

the above operations are being proceeded with, dry the hands and feet, and as soon as dry clothing or blankets can be procured, strip the body and cover or gradually re-clothe it, but taking care not to interfere with the efforts to restore breathing. (See the two Engravings illustrative of Dr. Marshall Hall's method.)

"Should these efforts not prove successful in the course of from two to five minutes, proceed to imitate breathing by Dr. Silvester's method, as follows:—Place the patient on the back on a flat surface, inclined a little upwards from the feet; raise and support the head and shoulders on a small firm cushion or folded article of dress placed under the shoulder-blades. Draw forward the patient's tongue, and keep it projecting beyond the lips: an elastic band over the tongue and under the chin will answer this purpose, or a piece of string or tape may be tied round them, or by raising the lower jaw the teeth may be made to retain the tongue in that position. Remove all tight clothing from about the neck and chest, especially the braces. To Imitate the Movement of Breathing.—Standing at the patient's head, grasp the arms just above the elbows, and draw the arms gently and steadily upwards above the head, and keep them stretched upwards for two seconds. (By this means air is drawn into the lungs.) Then turn down the patient's arms, and press them gently and firmly for two seconds against the sides of the chest. (By this means air is pressed out of the lungs.) Repeat the measures alternately, deliberately, and perseveringly about fifteen times in a minute until a spontaneous effort to respire is perceived, immediately upon which cease to imitate the movements of breathing and proceed to induce circulation and warmth.

"*Treatment after Natural Breathing has been Restored.*—Commence rubbing the limbs upwards, with firm, grasping pressure and energy, using handkerchiefs, flannels, etc. (by this measure the blood is propelled along the veins towards the heart). The friction must be continued under the blanket or over the dry clothing. Promote the warmth of the body by the application of hot flannels, bottles, or bladders of hot water, heated bricks, etc., to the pit of the stomach, the armpits, between the thighs, and to the soles of the feet. If the patient has been carried to a house after

respiration has been restored, be careful to let the air play freely about the room. On the restoration of life a teaspoonful of warm water should be given; and then, if the power of swallowing have returned, small quantities of wine, warm brandy-and-water, or coffee should be administered. The patient should be kept in bed, and a disposition to sleep encouraged.

"*Appearances which generally accompany Death.*—Breathing and the heart's action cease entirely; the eyelids are generally half-closed, the pupils dilated, the jaws clenched, the fingers semi-contracted, the tongue approaches to the under-edges of the lips, and these, as well as the nostrils, are covered with a frothy mucus. Coldness and pallor of surface increase.

"*Cautions.*—Prevent unnecessary crowding of persons round the body, especially if in an apartment. Avoid rough usage, and do not allow the body to remain on the back unless the tongue is secured. Under no circumstance hold the body up by the feet. On no account place the body in a warm bath, unless under medical direction, and even then it should only be employed as a momentary excitant."

DRUNKENNESS.

When a person is what is called 'dead drunk,' he is in a state closely resembling apoplexy. The neckcloth should be loosened; cold water dashed upon the head, which should be raised; an emetic of mustard should be given, if it can be got down the throat, and the throat tickled with a feather to excite vomiting. After this has acted freely, a strong purge of calomel and colocynth, or a drop of croton oil, should be given.

EYE, DUST, ETC., IN.

If the eye be not violently rubbed, the tears will generally wash away the substance that gives pain; but if not, the upper lid should be raised and examined, and the irritating particle be removed with the corner of a handkerchief or fine hair-pencil. The eye should afterwards be washed with warm water, to which, if quicklime be in, a few drops of vinegar has been added.

FITS.

Fainting.—Lay the patient flat on the back. Give small quantities of stimulants; bathe the face and temples with cold water.

Apoplectic.—The patient being laid down, or having fallen, raise the head and shoulders; the handkerchief and neck of the shirt should be loosened, and cold water applied to the face; mustard plasters to the feet or calves of the legs.

Epileptic.—Lay patient down, slightly raise the head; undo collars, handkerchiefs, etc. Apply cold water to head and face.

Hysterical.—Lay the patient down, and freely dash cold water on the face and head.

For further particulars on after-treatment, see the several diseases under their respective names.

HANGING.

Loosen all ligatures; dash cold water on the face; employ artificial respiration, as directed for *Drowning*. When the patient is somewhat revived, it may be necessary to apply from four to six leeches to the temples.

LIGHTNING.

Apply strong stimulants to nostrils; friction of surface of body; stimulants internally.

SKULL, FRACTURED.

The accident that causes concussion of the brain may produce a fracture of the skull. The treatment in the hands of non-professional persons must be the same as for concussion (see *Brain, Concussiom of*). If the scalp also should be torn or cut, the wound should be dressed with water-dressing, *i. e.* lint or rag wetted with water and covered with oil-silk, or kept wetted with cold water and exposed to the air if the bleeding is profuse. Any fragments or splinters of bone, if loose, should be removed.

SPRAINS.

A sprain, or strain, violently stretches or tears the liga-

ments and tendons of a joint. The pain is very severe, and the effects often more serious than those of a simple fracture. The joints are particularly susceptible of inflammation under injury.

The limb should be elevated, the body recumbent, the strained joint wrapped round with thin folds of rag wetted with cold water: this must be renewed as fast as it dries. When the pain and inflammation have subsided, the joint may be gently rubbed once or twice a day with soap liniment. The movements of the joint must be very cautiously resumed.

SUFFOCATION.

Let the fresh air have free access; sprinkle the face with cold water; employ artificial respiration, as in *Drowning*; give moderate stimulants as soon as the patient can swallow.

WOUNDS.

ABRASION.

Graze; Excoriation.

Symptoms.—The superficial skin removed by violence, as a blow, a fall, or friction of clothing.

Treatment.—For a slight graze or excoriation, apply court plaster; more extensive, gold-beater's skin or collodion; or collodion painted over the gold-beater's skin.

Common adhesive plaster, or diachylon, generally irritates an abraded surface.

Any simple unirritating substance that will serve to protect the true or deep skin while the cuticle or outer skin is being formed; *e. g.* spermaceti ointment, glycerine, etc.

For a raw surface, from which a portion has been totally removed, a piece of soft lint should be laid on and allowed to soak the blood, which will dry and form a kind of natural protection; or it may be covered with lint soaked in Friar's balsam. If the surface do not heal in this way, apply wet lint and oil-silk.

CUTS.

Remove foreign bodies, then stop bleeding by sponging with cold water or diluted muriated tincture of iron, or

placing the limb in a raised or relaxed posture and employing pressure. Then bring the edges of the wound close together, by sticking plaster, and if the cut be a long one, leave one or two small spaces by which fluids may ooze out, then cover all with rag or lint as a bandage.

For a slight cut, a piece of gold-beater's skin, or a piece of rag soaked in Friar's balsam, folded several times over the part and left to dry, will answer the purpose.

If the part swell from inflammation, the strapping should be loosened a little; otherwise the dressing need not be disturbed for two or three or more days.

Where the wound gapes considerably, a stitch or two of silk tied between the opposite edges will often prove useful in keeping the parts in their proper position.

STAB.

A stab should not be immediately closed, but be treated with cold-water dressing, etc., to prevent inflammation, while blood or other fluid has also thereby an opportunity of escaping by the orifice. When this has ceased the wound may be treated as a clean cut or bruised wound, as the case may be.

BRUISED WOUNDS.

If at the same time that a cut is inflicted, the parts be bruised, the wound should not be closed at once by sticking plaster, but should be dressed by wet lint and oil-silk, or a bread-and-water poultice. This should be continued until the bruised or destroyed parts are cast off, and the wound filled up by granulations of new flesh. If the new growth take place too rapidly it may be checked by being touched with nitrate of silver, and dressed with zinc ointment, or Turner's cerate, spread upon lint.

A torn wound should be treated the same as a bruised wound, the torn part being first replaced in its position, and held there by a strap of plaster.

Rest, low diet, and saline aperients, will be required if the inflammation be attended with feverishness.

CUT-THROAT.

In cases of cut-throat, the wound should not be closed by plaster, lest suffocation subsequently occur by blood

flowing into the windpipe; bleeding should first be checked by cold sponging, or if this does not stop the bleeding, by tying the wounded arteries; *i. e.* the open and bleeding ends of the arteries should be taken hold of by the forceps, and then firmly tied round with a piece of strong thread. The posture should be such as to prevent difficulty of breathing.

The wound is afterwards to be treated as any other large or serious wound.

SPLINTERS, THORNS, ETC., PUNCTURED WOUNDS.

The splinters, etc., should be removed with a pair of forceps, if it can be taken hold of easily. If not within reach, a bread-and-water poultice should be applied, should inflammation take place. The limb should be elevated. If matter forms, the 'gathering' may require to be punctured, and the thorn or splinter being discharged, the inflammatory symptoms will subside.

WOUNDS OF THE ABDOMEN.

If the abdomen be stabbed and the bowels protrude, these must be first examined to see that they are not wounded. They should then be very gently sponged, and pressed back through the aperture.

If the bowel be wounded, the edges of the wound in the intestine should be very finely stitched, and then the part be carefully pressed back again into the abdomen through the wound, which is to be treated with water-dressing, as above directed for a stab.

Severe inflammation in the peritoneum is sure to follow. This is to be treated as directed (see *Inflammation of the Bowels*). *With this caution*,—that no purgatives should be given, and opium may be rather more freely administered.

GUNPOWDER WOUNDS OR BURNS.

The wound produced by explosion of gunpowder is a compound of bruising and burning. The surface of the wound should be well washed to remove every particle of gunpowder, and the wound then dressed with water-dressing, as for bruised or torn wounds.

GUNSHOT WOUNDS

Are perforated wounds, or are partly bruised and partly torn. They do not bleed so much as cuts or stabs, because the arteries are torn, and sooner contract at their wounded ends. The nature and extent of the injury inflicted will vary with the velocity and direction as well as the size and shape of the projectile. A gunshot wound is generally attended with physical depression or nervous shock. Within twenty-four hours, signs of inflammation in the wound appear; the parts become painful and swollen; and in two or three days suppuration, or the formation of matter, will have taken place. In a few days after this, those parts that have been in contact with the ball, in consequence of their having been destroyed by the bruising action of the ball, will be cast off: the period at which this is complete will vary from five or six days to a fortnight, according to the extent of surface injured. The discharge of matter may continue for many months. If the inflammation attending these stages be excessive, or the patient be in a bad state of health, or under unfavourable conditions as to pure air, etc., or if the destruction of bone as well as flesh be very great, mortification may follow.

Treatment.—Give a small quantity of wine or other stimulant to remedy the state of depression. Then, if the shot have passed completely through a part, sponge the surface clean, and cover with wet lint, which should be kept moistened with cold water, but not disturbed, for three or four days: after which, treat as for a bruised wound.

If the wound be torn as well as bruised, the parts must be well washed, and then treated by cold water.

If the shot or other foreign body *be within reach* of the orifice of the wound, it should be removed by the forceps. It may be necessary to enlarge the wound by an incision before the substance can be removed. It is quite obvious that this part of the treatment can only be confided to the hands of a surgeon. It will be safer for a non-professional person to leave the ball or foreign body in the wound, than to be cutting or groping therein. Bullets are often lodged in soft parts, and remain there for life without harm.

SECTION III.

POISONING.

POISONING.

GENERAL OBSERVATIONS.

THERE are certain features observed in cases of poisoning, the mention of which may be of use in leading to the detection of the accident, or in relieving the mind from unfounded alarm.

1. The symptoms of poisoning generally appear suddenly, while the individual is in health. When a large dose of a poison is taken, this is invariably the case. Even small doses are frequently so quickly followed by their symptoms, that it is easy to trace the sequence. If a poison be criminally administered, the quantity will generally be such as to cause a speedy appearance of the symptoms. The symptoms caused by noxious articles of food are sometimes very speedily manifested. Sleep and intoxication retard the action of poisons: some diseases, on the contrary, will accelerate their operation, while their effects may be delayed by others. It may be stated as a general rule, that in debilitated constitutions the influence of poisons is more speedy than in the robust and healthy.

2. The symptoms most frequently appear soon after food or medicine has been taken, or within an hour afterwards.

3. When several persons partake of the same food or medicine, if it be mixed with poison, all suffer from similar symptoms. Such an occurrence should lead to close inquiry and investigation of the articles of diet, and vessels employed in the culinary processes.

4. The symptoms of poisoning frequently resemble those of disease. It is therefore necessary that great caution should be observed before so grave an imputation as criminal or careless poisoning be fixed upon any persons. Diseases of the brain or of the heart, cholera, inflammation of the bowels, ruptures, or perforations of internal organs, colic, tetanus, apoplexy, etc., might be mistaken for poisoning.

Bearing in mind these circumstances, the following statement of the symptoms and treatment of poisons may be found useful:—

SYMPTOMS AND TREATMENT OF POISONS.

POISON.	SYMPTOMS.	TREATMENT.
Arsenic. *White Arsenic.* *Orpiment.* *Realgar, or Red Arsenic.* *Scheele's Green.*	Burning pain and thirst; dryness of mouth and throat; burning pain and tenderness on pressure of stomach; sickness; frequent vomiting; diarrhœa and cramps; pulse small and rapid; great nervous depression; convulsions.	Stomach pump; or emetic of half a drachm of sulphate of zinc, or powdered ipecacuanha; or two teaspoonfuls of mustard in a cup of warm water. Drink large draughts of gum-water, or linseed tea, or milk, or milk and eggs. Afterwards treat for inflammation of stomach and bowels.
Antimony. *Tartar Emetic.* *Butter of Antimony.*	Same as above; but depression greater and more rapid.	Emetics, if sickness has not occurred freely. Give freely a drink of decoction of tea, of oak-bark, or nut-galls, with magnesia.
Copper. *Blue Vitriol.* *Mineral Green.* *Verdigris.*	Same as above, but rather less acute. Inflammation of stomach and bowels follows.	Emetic, or stomach-pump. White of egg, milk, flour and water to be drunk freely. Subsequent symptoms of inflammation to be treated accordingly.
Lead. *Sugar of Lead.* *White Lead.*	Sugar of lead causes the same symptoms as above, if in a large dose. White lead causes colic and paralysis (which see).	Emetic of sulphate of zinc. Repeated small doses of sulphate of magnesia with a few drops of laudanum, if griping be severe.
Mercury. *Corrosive Sublimate.* *Calomel.* *White Precipitate.*	Powerfully irritating and acrid effects, as above (see *Arsenic*); with the addition of profuse salivation, coming on after several hours or days.	Emetic of sulphate of zinc. Draughts of white of egg and water, or of flour and water, or milk, or all mixed. For the salivation, gargles of alum.

POISON.	SYMPTOMS.	TREATMENT.
Acids. *Sulphuric.* *Nitric, or Aqua Fortis.* *Muriatic, or Spirits of Salt.* *Oxalic.* *Tartaric.*	Acid burning taste; vomiting of acid matters; the lips or lining membrane of the mouth charred or excoriated by the acid if undiluted; vomiting; purging; pain in stomach and bowels; depression of the pulse and nervous energies; convulsions.	Magnesia in water *ad libitum;* not carbonates of soda or potash, because by their effervescence they cause great distension of the bowels. Soap and water if the magnesia be not at hand; or lime-water.
Prussic Acid and Essential Oil of Almonds.	Paleness; depression of nervous power; giddiness; impaired vision; difficulty of breathing; faintness; loss of power of motion.	Stomach pump, or emetics; dash cold water *constantly* on the head; give a teaspoonful of sal-volatile in a wineglass of water every quarter of an hour, until some signs of revival.
Alkalies. *Strong* { *Potash.* *Soda.* *Ammonia.*	Taste nauseous, acrid, and burning; vomiting; pain in stomach and bowels; convulsions.	Vinegar *ad libitum*, with or without water, lemon juice, olive oil.
Nitre.	The symptoms are those of acrid poisons, with great depression.	Emetics; egg and milk; flour and water.
Salts *of various kinds; such as—Iodide of Potassium, Muriate of Ammonia, etc. etc.*	The effects will generally be the same as other acrid substances.	Emetics; egg and milk; flour and water.

POISON.	SYMPTOMS.	TREATMENT.
Ether. **Chloroform.**	These produce intoxication; in the latter the degree of fatal intoxication comes on in a very few minutes.	Suspension of life from these two substances requires the most energetic stimulation by fresh air, friction, ammonia, artificial respiration, the tongue being pulled forward.
Vegetable Poisons. *Aconite, or Monk's Hood.* *Bryony.* *Colchicum, or Meadow Saffron.* *Daphne Mezereon.* *Euphorbium.* *Savine.* *Opium.* *Hemlock.* *Henbane.* *Belladonna.* *Buttercups.* *Spurred Rye.* *Gamboge.* *Hellebore.* *Mushroom, etc. etc.*	Most vegetable poisons have strongly acrid and narcotic properties: they cause violent vomiting and purging; pain in the stomach; feebleness and rapidity of pulse; drowsiness; insensibility; convulsions; etc.	Promote vomiting; give stimulants if the depression and insensibility be considerable. Narcotic effects may be relieved by strong coffee, ether, etc. The patient should be kept constantly walked about, and roused, as long as drowsiness continues.
Animal Poisons. *Mussels, etc.*	Sickness; thirst; pain in stomach; giddiness; swelling of the limbs and body from extensive nettlerash.	Emetics; purgatives; stimulants, such as ammonia, ether, etc.
Zinc, Chloride of (*Burnett's Disinfecting Fluid*).	Burning pain in throat and stomach; vomiting; collapse.	Emetics of ipecacuanha; or of sulphate of zinc. Drink freely of white of eggs and water, or milk.

SECTION IV.

ALPHABETICAL LIST OF MEDICINES

AND

TABLE OF PRESCRIPTIONS;

WITH

OBSERVATIONS ON THE USES AND DOSES OF MEDICINES,

A CLASSIFICATION OF MEDICINES AND PRESCRIPTIONS,

A TABLE OF MEDICAL WEIGHTS AND MEASURES,

AND

A LIST OF ARTICLES FOR A MEDICINE-CHEST.

MEDICINES AND PRESCRIPTIONS.

PRELIMINARY OBSERVATIONS UPON THE USES AND DOSES OF MEDICINES.

As stated in the preface, we have advised the use of such medicines only as may *safely* be entrusted to a prudent person. The following Table is much fuller than is absolutely required for an ordinary medicine-chest; but a wider opportunity of selection is hereby afforded. In the table of prescriptions it will be seen that the proportions of each ingredient, as required for different ages, is stated. In this manner, as likewise in the list of medicines, it is more particularly indicated what medicines may be given to children, and what to adults.

The selection and administration of medicines may probably be somewhat assisted by the following remarks and classified index to medicines and prescriptions:—

Circumstances which Modify the Effects of Medicines.

a. Form.—Medicines act more rapidly in solution than in the solid state: therefore, those salts which are soluble act more powerfully than those that are not soluble.

β. Combination.—The action of a medicine may be promoted, or moderated, by joining it with other medicines having a similar or opposite effect; by combining it with substances which shall render the stomach more susceptible of its action, or shall protect that organ from the too powerful action of the medicine. Lastly, by mixing it with

substances which shall render it more palatable, and therefore less likely to be rejected by the stomach.

γ. Dose.—The effects of medicines will be different, according as large doses are given at long intervals, or repeated smaller doses at shorter intervals.

δ. Individual peculiarities:—

1. *Age.*—Children and aged persons, as a general rule, require smaller doses than persons in middle life; but there are certain exceptions: for instance, adults are sooner salivated by mercury than children: a dose of calomel, which may be given with impunity to a young child, will sometimes cause profuse salivation in a full-grown man. Children are so susceptible of the influence of opium, that it should never be given to them without the greatest caution.

2. *Sex.*—Females somewhat resemble children in their susceptibility to the action of medicines, which is more rapidly and powerfully manifested upon them, at the same time that the effects sooner pass off, than in males. Hence medicine should be given in smaller doses, and at shorter intervals, to women than to men.

It is, moreover, especially to be borne in mind, that during the periods of menstruation, pregnancy, and nursing, greater caution is to be observed than at other times in the administration of medicines to women. For instance, during menstruation strong purgatives should not be given; and powerful medicines of all kinds should be given in smaller doses, and at longer intervals, at this time, lest the function be interrupted. During the early months of pregnancy strong purgatives are likely to cause miscarriage. Opiates, and all other strong medicines that rapidly pass into the circulation, should be withheld, or very cautiously given, to a woman while she is nursing, or their effects may be made manifest in her infant.

3. *Habit.*—It is sometimes matter of surprise that large doses of medicines, *e. g.* opium, do not produce the effect anticipated. This is found, on close inquiry, to be owing to the existence of the habit of opium-eating. Where the habit of taking considerable quantities of alcoholic stimulants has been indulged in, medicines of a stimulant character will produce a slighter effect.

4. *Disease.*—The influence of disease upon the action of medicines is well exhibited in the large doses of opium which are borne with impunity in tetanus, and in some neuralgic affections.

5. *Mental influence.*—Inasmuch as the healthy condition of the body is greatly under the control of the nervous system, and therefore of the mind, so it is obvious that powerful mental impressions will, through the nervous system, operate upon the frame in a morbid state. This fact is made familiar to medical practitioners by almost daily examples. Thus it is that a disease which has resisted the skill and science of several practitioners, will yield at once when the patient meets with the person whom he (or she) will let cure him. Thus it is that bread-pills subdue disease; and thus it is that globules of sugar of milk develope their marvellous healing powers.

6. *Personal peculiarity*, or, in technical language, *Idiosyncrasy.*—Some persons have their own special and unusual susceptibility towards some medicines and other substances; thus, the odour or dust of ipecacuanha powder has been known to prostrate a strong man, and cause blueness of face, coldness of the surface, and all the symptoms of a severe attack of spasmodic asthma. A similar peculiarity has been noticed as regards some other medicines.

7. *Particular organs.*—Medicines act more speedily when taken into the stomach than when applied to the skin. Some medicinal substances are not absorbed by the skin unless its surface has been removed by blistering. Medicinal substances injected into the bowels are absorbed, but not so rapidly as when taken into the stomach.

8. *Sleep.*—The action of many medicines, *e. g.* mild aperients, appears to be suspended or restrained during sleeping; their effects being manifested shortly after waking.

9. *Rest and posture.*—It is owing, probably, to the complete rest and the recumbent posture observed during sleep that the actions of medicines are influenced thereby. The operation of astringent and other medicines for diarrhœa is favoured by rest and recumbent posture. Standing, walking, etc., frequently render medicine useless in these cases.

CLASSIFICATION

OF

MEDICINES AND PRESCRIPTIONS.

In the *Table of Medicines and Prescriptions, and their Uses*, we have spoken of their operations as being antacid, antispasmodic, etc. In order to facilitate the selection of medicines according to the effect desired to be obtained, we have classified them according to their operation; so that by glancing over each class, as given below, and then referring to the Alphabetical List of Medicines, or to the Prescriptions, the required medicine will readily be found, and information given as to the disease for which it is adapted, together with its dose according to age.

Alteratives.

(*So called.*)
(*Action doubtful.*)

Blue pill.
Calomel.
Chlorate of potash.
Cod-liver oil.
Grey powder.
Sarsaparilla.
Taraxacum.

Antacids.

Correcting Acidity.

Borax.
Carbonate of ammonia.
" potash.
" soda.
" magnesia.
Prepared chalk.
Solution of potash.

Antispasmodic.

Ether.
Aromatic spirits of ammonia.
Assafœtida.
Chloric ether
Galbanum.
Guaiacum.
Opium.
Peppermint.
Stramonium.
Tincture of valerian.

It may be observed that narcotics and sedatives have also antispasmodic properties.

Aperients & Purgatives.

Aloes.
Broom tops.
Calomel.
Castile soap.
Castor oil.
Colchicum.
Colocynth.
Croton oil.
Epsom salts.
Glauber's salt.
Guaiacum.
Jalap.
Magnesia.
Manna.
Mercurial pill.
Mercury with chalk.
Rhubarb.
Rochelle salt.
Scammony.
Senna.
Tartrate of potash.

Astringents.

Acetate of lead.
Alum.
Catechu.
Chalk, prepared.
Creasote.
Gallic acid.
Iron, muriated tincture of.
Logwood.
Oak bark.
Zinc, sulphate of.

Caustics.

Nitric acid.
Pure potash.
Sulphate of copper.
Sulphuric acid.

Diaphoretic or Sudorific.

Promoting Perspiration.

Acetate of ammonia.
Antimonial powder.
Camphor.
Dover's powder.
James's powder.
Sweet spirit of nitre.
Tartar emetic.

Diuretics.

Promoting the Secretion of Urine.

Acetate of ammonia.
Bearberry.
Borax.
Broom tops.
Cantharides.
Castile soap.
Copaiba.
Cubebs.
Juniper.
Nitre.
Squills.
Turpentine.

Emetics.

Antimonial wine.
Ipecacuanha.
Mustard.
Tartar emetic.

Expectorants.

Ammonia, carbonate of.
Ammoniacum.
Antimonial wine.
Friar's balsam.
Ipecacuanha.
Squills.
Tartar emetic.

Healing and Absorbents.

Calamine powder.
Chalk powder.
Glycerine.
Lead cerate.
Mercurial ointment.
Oxide of zinc.
Soap cerate.
Spermaceti cerate.

Narcotic and Sedative.

Belladonna.
Camphor.
Chloric ether.
Creasote.
Dover's powder.
Hemlock.
Henbane.
Laudanum.
Lettuce.
Morphia.
Opium.
Paregoric.

Refrigerant, or Cooling.

Acetate of ammonia.
Cream of tartar.
Goulard's lotion.
Lead ointment.
Nitre.

Stimulants.

Ether.
„ chloric.
Ammonia.
„ spirits of.
Camphor.
Capsicum
Ginger.
Iodine.
Musk.
Opodeldoc.
Peppermint.
Saffron.
Senega.
Turpentine.

Stomachic and Cordial.

Aniseed.
Aromatic confection.
Cardamoms.
Cascarilla.
Chamomile.
Cinnamon.
Cloves.
Dill.
Gentian.
Peppermint.
Rhubarb.

Styptics.

Alum.
Muriated tincture of iron.

Tonics.

Alum.
Bark.
Bismuth nitrate.
Calumba.
Cascarilla.
Chamomile.
Citrate of iron.
Gentian.
Hops.
Iodide of iron.
Iron, carbonate of.
Muriatic acid.
Nitrate of silver.
Nitric acid.
Quassia.
Quinine.
Sarsaparilla.
Zinc, sulphate of.
Tartrate of iron.
Sulphuric acid.

MEDICAL WEIGHTS AND MEASURES.

Scales and measures should always be used in the administration of medicines, if they can be obtained. The sizes of spoons vary so greatly, that under the same denomination a double quantity may be held by a different spoon. This is especially the case with powders, the densities of which vary still more than the sizes of spoons. Drops also have an infinite variety as to their bulk, depending on the size of the neck of the bottle, its dryness, the density of the liquid, etc. Hence, it is evident how unsafe it is to trust to dropping, in the administration of medicines. In the present work, where the dose of a medicine is stated in drops, the measurement by minims should be adopted, if possible. The word 'drops' has been used because it too often happens that a minim measure is not at hand; for the same reason the measurements of teaspoons, etc., are given. We would, however, repeat the caution never to trust to such quantities, if a properly graduated glass can be obtained.

The following Tables will explain the preceding remarks:—

Table *of* Medical Weights *and* Measures *mentioned in this work; with their Equivalents in ordinary spoonfuls, the Abbreviations made use of herein, and the Signs used in medical works.*

Solids .	1 lb. = 1 pound	contains	12 ounces.
	1 oz. = 1 ounce = (℥j.) . .	ditto	8 drachms.
	1 drm. = 1 drachm = (ʒj.) . .	ditto	3 scruples.
	1 scr. = 1 scruple = (℈j.) . .	ditto	20 grs.
	1 gr. = 1 grain = (gr.)		

By authority of the British Medical Council small brass weights are now made, weighing from one to one hundred grains.

Liquids	O	= 1 pint	= (Oj.) . .	contains 20 ounces.
	1 oz.	= 1 ounce	= (℥j.) . .	ditto 8 drachms.
	1 drm.	= 1 drachm	= (ʒj.) . .	ditto 60 minims.
	1 min. or dr.	= 1 drop or minim	= (♏j.)	

Graduated glasses for the following measurements are sold by druggists:—

A moderate-sized	teaspoon . . .	should hold about	1 drachm.
ditto	dessertspoon . .	ditto	2 drachms.
ditto	tablespoon . .	ditto	½ ounce.
ditto	wineglass . . .	ditto	1½ ounce.
ditto	teacup	ditto	4 ounces.

ALPHABETICAL LIST OF MEDICINES.

N.B.—Where the dose is stated in two quantities, as from 10 to 20 grains, etc., the first is the ordinary dose. Where blanks are left, as under the ages of childhood, the medicines are not suitable for infancy.

Names.	Operation.	Diseases in which given.	Doses according to Age.						Remarks.
			Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	
Acetate of Lead	Astringent	Hæmorrhages	...	...	...	...	1 gr.	2 grs.	Made into pills with bread crumb and treacle, one every four or six hours.
Acid, Citric . .	Cooling	Feverish complaints	...	...	...	...	...	20 grs.	To be given in effervescence. See Pres. 29, 35.
Acid, Muriatic, diluted (1 *part of acid to* 3 *of water*)	Tonic	Debility Dyspepsia	...	...	...	...	15 dps.	20 dps.	Three times a day in a wineglass of water.
	Astringent gargles	Sore-throat Some Skin	...	...	...	...	...	2 dms.	Mixed with 8 oz. of water to make a gargle or lotion.
	Stimulating lotion	Diseases							
	Ditto	Ditto	...	...	...	...	...	...	As a lotion, mixed with two or three parts of water, and applied to the surface.

Names.	Operation.	Diseases in which given.	Doses according to Age.						Remarks.
			Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	
Acid, Nitric . .	Caustic	To destroy Warts	...	...	...	...	...	...	Apply very carefully in its pure state.
Do. do. diluted (1 *part to* 10 *of water*).	Astringent Tonic	Dyspepsia Liver Disorders Diarrhœa Eruptions	...	...	...	5 dps.	10 dps.	20 dps.	In 1½ oz. of water, three times a day.
Acid, Sulphuric, diluted (*with* 12 *parts of water*)	Astringent	Diarrhœa Cholera	...	...	...	10 dps.	20 to 30 dps.	½ dm.	In 2 oz. of water every four hours.
	Tonic	Dyspepsia Hæmorrhage Profuse Sweating Purpura	...	...	...	...	...	10 to 20 dps.	To be taken in water, three times a day.
	Stimulating lotion	Itching Nettle-rash Sore-throat	...	...	...	...	½ dm.	1 dm.	In 8 oz. of water, for gargle or lotion.
Acid, Gallic .	Astringent	Hæmorrhages	...	...	...	...	3 grs.	5 grs.	In form of pill, or mixed with gum-water, every four or six hours.
Æther . . .	Stimulant Antispasmodic	Hysteria Asthma Spasms Fainting	...	...	...	5 to 10 dps.	20 dps.	½ to 1 dm.	In a wineglass of water, every four or six hours.

Names.	Operation.	Diseases in which given.	Doses according to Age.						Remarks.
			Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	
Æther, Chloric	Sedative Antispasmodic Stimulant	Spasms Neuralgia	...	...	...	5 dps.	10 dps.	20 to 30 dps.	Do.
Aloes	Purgative	Costiveness	...	...	...	...	5 grs.	10 grs.	As pills, at bed-time.
Do. and Myrrh Pills	Do.	Do.	...	...	...	...	5 grs.	10 grs.	
Do. Decoction of	Do.	Do.	...	...	...	...	½ oz.	1 oz.	Morning or evening, occasionally.
Do. Clyster of .	...	Worms	...	...	...	20 to 30 grs.	...	...	Dissolved in 4 oz. of warm water or gruel.
Alum	Tonic Styptic Astringent	Hæmorrhage Whites	...	...	...	...	5 grs.	10 grs.	Every three or four hours.
	Tonic and Antispasmodic	Painter's Colic	...	...	...	5 grs.	5 grs. 10 grs.	10 grs. ½ dm.	Three times a day. Three times a day.
		Hooping Cough	1 gr.	2 grs.	4 grs.	5 grs.	10 grs.		Do.
	Astringent	Relaxed Sore-throat	...	...	...	...	...	1 dm.	Dissolved in ½ pint of water.
		Inflamed Eyes	...	...	...	...	...	...	In the proportion of 4 grs. to 1 oz. of water for any age.

Names.	Operation.	Diseases in which given.	Doses according to Age.						Remarks.
			Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	
Alum Whey .	Astringent and cooling	...	...	...	...	...	2 to 3 oz.	...	Add 2 dms. of Alum to 1 pint of milk; then strain.
Amber, Oil of .	Stimulant	Rheumatism Hooping-Cough.	...	...	...	...	...	...	Is only to be used for externally rubbing on the chest; in Hooping Cough, or on the limbs in rheumatic pains.
Ammonia, Acetate, Solution of Mindererus spirit.	Diuretic and Diaphoretic	Fevers Catarrh Bronchitis	...	...	½ dm.	1 dm.	2 dms.	6 dms.	Every four or six hours.
	Refrigerant or cooling	External inflammation Bruises Scald-head, and some other eruptions	...	...	...	...	...	1 oz.	With 5 or 7 oz. of water to make a lotion.

Names.	Operation.	Diseases in which given.	Doses according to Age.						Remarks.
			Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	
Ammonia, Aromatic Spirits of	Stimulant and Antispasmodic	Debility Fainting Spasms Hysteria Dyspepsia	...	...	...	10 to 20 dps.	20 dps. to 30 dps.	½ to 1 dm.	In water, every three or four hours.
Ammonia, Carbonate of	...	Scarlet Fever	...	2 grs.	3 grs.	3 grs.	5 grs.	5 grs.	Dissolved in half an ounce of water, every four or six hours.
	Antacid and Stimulant Expectorant	In chronic Cough	...	...	...	...	3 grs.	5 grs.	Three times a day, dissolved in 1 ounce of water.
Aniseed, Oil of	Stimulant Cordial	Flatulency and Griping in Children	¼ dp.	½ dp.	½ dp.	1 dp.	1 dp.	2 dps.	In water or syrup.
Antimonial Powder (James's Powder)	Diaphoretic	Fever Catarrh	¼ gr.	½ gr.	1 gr.	2 grs.	4 grs.	5 grs.	Every six or eight hours.
Antimonial Wine	Expectorant Diaphoretic	Cough Fever Croup	...	...	5 dps.	10 dps.	20 dps.	½ dm.	Antimony should be very cautiously given to children.
	Emetic	...	...	..	...	...	...	1 dm.	Every five minutes, in warm water, until vomiting occur.

Names.	Operation.	Diseases in which given.	Doses according to Age.						Remarks.
			Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	
Aromatic Confection	Cordial and Stimulant	Diarrhœa Griping and Flatulency	2 grs.	2 grs.	4 grs.	5 grs.	20 grs.	½ dm.	Usually given with Chalk Mixture or with Magnesia.
Assafœtida . .	Antispasmodic Stimulant	Hysteria	...	...	...	...	5 grs.	10 grs.	Three times a day.
Do. tincture of.	Do.	Chronic cough Hysteria	...	...	...	...	...	½ to 1 dm.	For a clyster. 2 dms. in a clyster of soap and water; or added to a turpentine clyster.
Balsam, Friar's	Stimulant Expectorant	Chronic Catarrh, or Bronchitis	...	...	10 dps.	15 dps.	20 dps.	½ dm.	With gum-water or syrup, two or three times a day.
	As a varnish	For Cuts	...	...	...	...	...	...	The edges of the cut should be brought together, and the rag or lint be then painted over with the Balsam.

Names.	Operation.	Diseases in which given.	Doses according to Age.						Remarks.
			Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	
Bark (*Cinchona*), powder	Tonic	Fevers Ague Debility	...	...	...	...	20 grs.	½ to 1 dm.	Three times a day.
Do. infusion of.	Do.	Do.	...	...	...	½ oz.	2 oz.	3 oz.	Made from 1 oz. of bruised bark to 1 pint of boiling water, let stand until cold.
Do. decoction of	Do.	Do.	...	...	...	½ oz.	2 oz.	3 to 4 oz.	Made from 10 dms. of bark: boil for 15 minutes in a pint of water, and then strain.
Do. tincture	Do.	Do.	...	...	10 dps.	15 dps.	½ dm.	1 dm.	In a little water.
Bark, Cascarilla, Infusion of	Tonic Stomachic	Debility Dyspepsia	...	...	...	...	½ oz.	1 to 2 oz.	Made like Infusion of Bark: *see* above.
Bark of Oak	Astringent	As an Injection in Whites or Gleet	...	...	...	...	...	...	Made like Decoction of Bark: *see* above.
Basilicon Ointment	Stimulant	Burns Ulcers	...	...	...	...	...	...	Mixed with equal parts of Spirits of Turpentine as a dressing for Burns.

Names.	Operation.	Diseases in which given.	Doses according to Age.						Remarks.
			Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	
Bearberry . .	*See* Uva Ursi, decoction & extract of.								
Belladonna, Extract of	Sedative	Neuralgia	...	...	...	...	...	...	Smeared externally on the painful part.—Taken internally, it is a deadly poison.
Liniment of									Do. Do.
Bicarbonate of Potash	Antacid	Dyspepsia	...	...	...	20 grs.	20 grs.	30 grs.	With same quantity of Citric or Tartaric Acid, forms effervescing draught.
Bicarbonate of Soda	Antacid	Dyspepsia	...	...	...	20 grs.	20 grs.	30 grs.	Same as above, or it may be taken in water only, to relieve heartburn.
Bismuth, Nitrate of	Tonic	Dyspepsia Water Brash Diarrhœa	... ¼ gr.	... ½ gr.	... 1 gr.	... 2 grs.	3 grs. 5 grs.	5 grs. 5 grs.	Three times a day, with Bicarbonate of Soda. Every three hours.
Bittersweet . .	*See* Dulcamara.								

Names.	Operation.	Diseases in which given.	Doses according to Age.						Remarks.
			Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	
Borax Powder .	Antacid	Thrush	...	...	...	...	...	...	1 dm. mixed with 1 oz. of honey, and smeared on the gums or tongue.
		Eruptions of a scaly character.	...	...	...	...	...	1 to 2 dms.	With ½ pint of water, for a lotion.
Bromide of Iron.	Tonic.	Epilepsy and Chorea.					3 grs.	5 grs.	Three times a day, dissolved in water.
Bromide of Potassium.	Tonic and Sedative.	In Epilepsy and Chorea.					5 to 10 grs.	10 to 30 grs.	Do. Do.
Broom-tops and seeds, Decoction of	Diuretic	Dropsy, with Diseases of the Chest	...	...	...	...	1 oz.	2 oz.	This decoction is made from ½ oz. each of Broom, Juniper berries, and Dandelion root, in 1½ pint of water, boiled down to 1 pint. To be taken every six hours.

Names.	Operation.	Diseases in which given.	Doses according to Age.						Remarks.
			Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	
Calamine, Powder	Absorbent	Excoriation Ulcers	...	...	...	...	...	...	Sprinkled upon the part from a fine muslin bag.
Do. Cerate . .	Drying Healing	Ulcers	...	...	...	...	...	...	Applied on rag or lint.
Calomel . .		Glandular Affections Chronic Skin Diseases Bilious Diseases	¼ gr.	½ gr.	½ gr.	½ gr.	1 gr.	1 gr.	Once in twenty-four hours, or only on alternate days.
	Purgative	...	1 gr.	2 grs.	2 grs.	2 grs.	3 grs.	5 grs.	Generally in combination with other purgatives, as Senna, Rhubarb, Colocynth, etc., or alone for infants, on emergency.
	Sedative	Cholera	...	...	...	...	...	...	(*See* Cholera.)
		Yellow Fever In acute Inflammations	½ gr.	1 gr.	1 gr.	1 gr.	2 grs.	2 grs.	Combined with Opium in doses of ¼ gr., and repeated every six or eight hours (for adults only).
		Jaundice	...	...	...	...	1 gr.	2 grs.	

Names.	Operation.	Diseases in which given.	Doses according to Age.						Remarks.
			Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	
Calumba, Powder	Tonic	Indigestion Debility.	...	...	...	...	10 grs.	20 grs.	Three times a day in water.
Calumba, Tincture of	Do.	Dyspepsia Vomiting attending on Pregnancy	...	...	...	...	...	½ to 1 dm.	Three times a day, combined with ½ dm. of Sal Volatile in 1½ oz. of water.
Camphor . .	Stimulant Diaphoretic Sedative	Inflammations Gangrene	...	...	...	...	2 grs.	3 grs.	Every four hours.
Camphorated Oil	Stimulant	Sprains Rheumatism Chilblains Glandular Swellings	...	...	...	...	...	...	Rubbed on externally.
Camphor Liniment, Compound	Do.	Do.	...	...	...	...	...	...	Do.
Camphorated Spirits	Do.	Do.	...	...	...	...	...	...	Do.

Names.	Operation.	Diseases in which given.	Doses according to Age.						Remarks.
			Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	
Camphor Julep, or Mixture .	Stimulant (feebler)	Fainting Nervousness	...	...	...	...	1 to 2 oz.	2 oz.	This is generally used as a vehicle for the administration of other medicines. It is made by placing a small piece of Camphor in a bottle of water.
Cantharides, Plaster of. .	Blistering	Inflammations, etc.	...	...	...	...	...	...	The Blistering plaster requires only to be spread about the thickness of a half-crown piece upon adhesive plaster.
Cantharides, Tincture of	...	...	...	...	...	...	...	...	Poison, in large doses.
	Diuretic	Hooping-cough	2 dps.	3 dps.	5 dps.	5 dps.	10 dps.	...	Combined with Paregoric, etc.: *see* Hooping-cough.
	Stimulant	Rheumatism Rheumatic pains	...	...	...	...	...	...	Applied outwardly as a liniment, with Opodeldoc.
Cantharides,	Blistering	...	...	...	...	...	...	...	Painted on the skin with a feather or small

Names.	Operation.	Diseases in which given.	Doses according to Age.						Remarks.
			Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	
Capsicum, Tincture of	Do.	Relaxed Sore-throat	...	...	...	...	...	...	Gargle, containing 1 dm. in 6 oz. of water.
Caraway, Oil of	Do.	Flatulency Griping	¼ dp.	½ dp.	½ dp.	½ dp.	1 dp.	2 dps.	Mixed with Magnesia or Chalk Mixture, every three or four hours.
Carbolic Acid.	Disinfectant or Stimulant.								As a stimulant lotion, one part to ten of water. Disinfectant, one part to forty of water.
Carbonate of Potash	Antacid (Same as Bi-carbonate)	...	...	...	...	...	...	...	The Bicarbonate should be used; the Carbonate is too acrid for general purposes.
Cardamoms, Tincture of	Cordial Stimulant Stomachic	Flatulence Indigestion.	...	...	...	½ dm.	½ dm.	1 dm.	Principally used to add warmth to other medicines.

Names.	Operation.	Diseases in which given.	Doses according to Age.						Remarks.
			Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	
Castile Soap .	Aperient Diuretic	Costiveness	...	...	...	2 grs.	3 grs.	5 grs.	Combined with Aloes or Rhubarb.
Castor Oil . .	Purgative	Do.	1 dm.	1 dm.	2 dms.	2 dms.	4 dms.	6 dms. to 1 oz.	
Catechu, Tincture of	Astringent	Diarrhœa	5 dps.	10 dps.	20 dps.	30 dps.	1 dm.	1 dm.	With Chalk Mixture, every three or four hours.
Cerate, Savine .	Stimulant	To keep a blistered surface open or discharging.	...	...	...	...	...	...	Spread on lint or linen rag.
Cerate, Soap .	Drying Healing	For Wounds spread on linen.							
Chalk, Prepared	Antacid	Diarrhœa	2 grs.	3 grs.	5 grs.	10 grs.	20 grs.	½ dm.	With Catechu, Aromatic Confection, etc.

Names.	Operation.	Diseases in which given.	Doses according to Age.						Remarks.
			Under 1 year.	1 to 5 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	
Chamomile Flowers, Infusion of	Soothing	Colic Internal pains	...	...	...	...	...	...	In fomentation.
Chloral, Syrup of (10 grs. in 1 drm.)	Sedative and to procure sleep	Nervousness and sleeplessness	...	...	...	...	½ to 1 dm.	1 to 2 dms.	This is a powerful drug. Its precise strength should be ascertained.
Chlorate of Potash	Tonic	Thrush, or Ulceration of the mouth Infantile remittent fever	½ gr.	1 gr.	1 gr.	2 grs.	4 grs.	5 grs.	Every six hours.
Lotion of do.									10 grs. to 1 oz. water.
Chloric Ether	Antispasmodic	Hysteria Pain Spasms	...	...	...	5 dps.	10 dps.	20 dps.	In water, every four or six hours.
Cinnamon	Aromatic Stimulant Stomachic	Diarrhœa Sickness Indigestion	½ gr.	1 gr.	2 grs.	3 grs.	5 grs.	10 grs.	Given in water, every two or three hours.

Names.	Operation.	Diseases in which given.	Doses according to Age.						Remarks.
			Under 1 year.	1 to 5 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	
Cinnamon, Oil of	Stimulant	Diarrhœa Sickness Indigestion	...	...	...	...	½ dp.	1 dp.	To add warmth to pills or other medicines.
Citrate of Iron	Tonic	Debility Chlorosis Poorness of blood	...	1 gr.	2 grs.	2 grs.	5 grs.	10 grs.	Two or three times a day, taken in water.
Citrine Ointment	Stimulant	Ringworm and some other chronic skin diseases	...	...	...	...	...	...	To be rubbed on the part night and morning.
Cod-liver Oil .	Alterative Nutritious	Scrofula Chronic rheumatism Consumption Wasting Debility	½ dm.	½ dm.	1 dm.	1 dm.	2 dms.	2 dms	This oil is usually given on Orange Wine. Peppermint, or any other aromatic water, will cover its flavour.

	Operation.	which given.	Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	Remarks.
Colchicum, Wine of	Diuretic Purgative	Rheumatic Gout	...	...	...	...	...	20 dps.	Every four or six hours.
Colocynth, Extract of	Purgative	Costiveness	...	...	...	...	5 grs.	5 to 10 grs.	Usually combined with other purgatives, in form of pills.
Condy's Fluid	Is used as a Disinfectant.		...	...	...	...	...	...	A teaspoonful to a pint of water.
Confection of Senna	Purgative	Costiveness Piles	...	...	...	...	...	1 to 2 dms.	Take early in the morning.
Copper, Sulphate (*Green Vitriol*)	Caustic	Indolent Ulcers	...	...	...	...	...	...	The surface to be gently touched with the Sulphate.
Cream of Tartar	Diuretic Aperient Cooling	Dropsies	...	...	...	...	20 grs. to 1 dm.	...	½ oz. to a quart of hot water, sugar, and lemon-peel, form a refreshing drink, called "Imperial."
		Fevers	...	...	...	...	2 dms. to ½ oz.		

Names.	Operation.	Diseases in which given.	Doses according to Age.						Remarks.
			Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	
Creasote . . .	Astringent	Diarrhœa	...	½ dp.	½ dp.	1 dp.	2 dps.	4 dps.	Mixed with solution of gum, or sugar and egg.
	Sedative	Sickness	...	...	...	...	1 dp.	2 dps.	Ditto, every three or four hours.
		Toothache	...	...	...	..	...	...	Applied on wool to the painful part.
Croton Oil . .	Strongly purgative	Obstinate Costiveness Apoplexy	...	...	...	...	...	1 dp.	This medicine should only be used in extreme cases.
Cubebs, Powder	Stimulant Diuretic Purgative	Chronic Inflammation of the Bladder	...	...	...	...	10 grs. to 1dm.	...	Three times a day, in water.
Dandelion . .	*See* Taraxacum								

Names.	Operation.	Diseases in which given.	Doses according to Age.					Remarks.
			Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	
Decoction of Logwood	Astringent	Diarrhœa	...	½ oz.	½ oz.	½ oz.	1 oz.	3 oz.	Every two or three hours. Made from 10 drms. of Logwood and a pint and a half of water boiled down to 1 pint, and sweetened for children.
Decoction of Poppies	Sedative	Local pains	...	...	...	...	...	...	To be applied externally, as a fomentation. Made by boiling 4 oz. of Poppy heads in 4 pints of water for a quarter of an hour.
Decoction of Sarsaparilla	Tonic	Debility	...	...	...	...	4 oz.	8 oz.	To be taken three times a day. Made from 5 oz. of Sarsaparilla, boiled in 4 pints of water down to 2 pints.

Names.	Operation.	Diseases in which given.	Doses according to Age.						Remarks.
			Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	
Decoction of Senega	Stimulant Diuretic Purgative	Dropsies Chronic Rheumatism	...	...	...	...	...	2 to 3 oz.	Made from 10 dms. of the root boiled in 2 pints of water down to 1 pint.
	Expectorant	Debility Chronic Bronchitis	...	...	...	...	...	1½ oz.	The dose to be taken three times a day.
Decoction of Dandelion	Purgative Diuretic Tonic	Disorder of the Liver Dropsies	...	...	...	...	...	1 to 3 oz.	Twice a day. Made from 4 oz. of the fresh bruised root boiled in a pint and a half of water down to one pint.
Decoction of Uva Ursi or Bear-Berry	Astringent Diuretic	Dropsies Chronic Inflammation of Bladder	..	...	...	...	...	1 to 3 oz.	Three times a day. Made from 1 oz. boiled in a pint and a half of water down to 1 pint.
Decoction of Bitter Sweet (*Dulcamara*)	Diuretic Diaphoretic	Chronic Cough Chronic Diseases of Skin Chronic Rheumatism	...	...	...	...	...	½ to 1 oz.	Three times a day. Made from 10 dms. boiled in a pint and a half of water down to 1 pint.

Names.	Operation.	Diseases in which given.	Doses according to Age.						Remarks.
			Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	
Dill Water . .	Cordial Stimulant	Flatulency Griping	1 to 2 dms.	½ oz.	1 oz.	2 oz.	...	...	A useful vehicle for Magnesia, Rhubarb, etc., for children.
Prescription for its preparation	*See* Prescription, p. 330.								
Dover's Powder	Sedative Diaphoretic	Catarrh	...	...	...	...	5 grs.	10 grs.	At bed-time.
		Rheumatism	...	...	...	...	5 grs.	10 grs.	Do.
		Dysentery	...	...	...	...	3 grs.	10 grs.	Every six or eight hours.
		Diabetes	...	...	...	...	3 grs.	10 grs.	Do.
		Diarrhœa	...	...	1 gr.	2 grs.	3 grs.	10 grs.	Do.
									(10 grs. of this powder contain 1 grain of Opium: it must therefore be very cautiously given to children.)
Epsom Salts .	*See* Magnesia, Sulphate of								
Extract of Gentian	Tonic Stomachic	Indigestion Debility	...	...	...	...	10 grs.	20 grs.	Twice a day, in form of pills

Names.	Operation.	Diseases in which given.	Doses according to Age.						Remarks.
			Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	
Extract of Hemlock	Narcotic Sedative	In painful Diseases, such as Neuralgia, Cancer, etc.	...	...	...	...	3 grs.	4 grs.	In form of pill, repeated, if required, after several hours. 1 dm. to half pint of water, for an outward application.
Extract of Henbane	Narcotic	Pain Rheumatism Chordee	...	...	...	...	2 grs.	5 grs.	Repeated after a not less interval than six hours.
Extract of Taraxacum (*Dandelion*)	Aperient	Bilious Complaints Indigestion Chronic Diseases	...	...	...	...	1 dm.	1 to 2 dms.	Twice a day.
Flowers of Sulphur	Aperient Diaphoretic	Chronic Rheumatism Chronic Skin Diseases	...	..	...	...	½ dm.	½ to 2 dms.	Once or twice a day.
		Itch	...	...	...	...	...	...	Made into an ointment with an equal weight of lard.
Friar's Balsam	*See* Balsam.								

Names.	Operation.	Diseases in which given.	Doses according to Age.						Remarks.
			Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	
Galbanum . .	Stimulant Antispasmodic Expectorant	Hysteria Irregular menstruation Chlorosis	...	...	...	...	10 grs.	10 to 20 grs.	Twice a day.
Gentian, Infusion of	Tonic Stomachic	Debility Indigestion	...	...	2 dms.	½ oz.	1 oz.	1 to 2 oz.	Twice or thrice a day. Made from ½ oz. of the root sliced and macerated for two hours in 1 pint of hot water.
Gentian, Tincture of	Tonic Stomachic	Debility. Indigestion	...	...	...	...	½ dm.	½ to 1 dm.	Once or twice a day in water.
Ginger Powder	Stimulant Cordial	Flatulency Griping Dyspepsia	...	1 gr.	2 grs.	2 grs.	2 to 5 grs.	5 to 10 grs.	Added to other medicines.
Ginger, Tincture of	do.	do.	...	...	5 dps.	10 dps.	20 dps.	½ to 1 dm.	Do.
Glauber's Salt .	Purgative	Costiveness	...	...	...	...	½ oz.	1 oz.	

Names.	Operation.	Diseases in which given.	Doses according to Age.						Remarks.
			Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	
Glycerine . .	Soothing Healing	Eruptions of the skin	...	..	...	...	...	...	As a lotion, one part to eight of water.
Goulard's Extract	Astringent Sedative	Inflammations	...	..	...	...	...	...	Diluted with water to form lotion as follows:—
Goulard Lotion	Cooling Sedative	Inflammations	...	...	...	...	...	...	1 dm. of the Extract to 1 pint of water.
Grey Powder .	*See* Mercury with Chalk.								
Guaiacum, Resin powdered	Stimulant Diaphoretic	Chronic Rheumatism Gout	. .	...	...	...	5 grs.	10 to 20 grs.	Three times a day.
	Purgative	Skin Diseases	...	...	...	...	...	15 grs. to 1 dm.	Once or twice a day.
Guaiacum, Tincture of	Stimulant Diaphoretic Antispasmodic	(as preceding)	...	...	...	...	½ dm.	1 dm.	Three times a day.

Names.	Operation.	Diseases in which given.	Doses according to Age.						Remarks.
			Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	
Hartshorn, Spirits of	*See* Ammonia								
Hemlock, Leaves, powdered	Sedative	Neuralgia Rheumatism. Cancer.	...	...	...	...	...	2 to 5 grs.	½ oz. boiled in a pint of water forms a lotion for cancerous ulcers, or may be mixed with bread as a poultice.
Henbane, Tincture of	Narcotic	Pain, etc., where opium is objectionable.	...	...	...	...	10 to 15 dps.	20 dps. to ½ dm.	Every six or eight hours. Henbane does not affect the head as much as Opium.
Hops, Tincture of	Tonic Sedative	Rheumatism Gout Dyspepsia	...	...	...	...	...	½ to 2 dms.	Twice a day.
Iodide of Potassium	Absorbent	Bronchocele Glandular swellings Rheumatism Lepra	...	...	...	1 to 2 grs.	2 to 5 grs.	2 to 5 grs.	Twice a day.

Names.	Operation.	Diseases in which given.	Doses according to Age.					Remarks.
			Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	
Infusion of Quassia	Tonic	Dyspepsia Hysteria Gout	...	...	...	½ oz.	1 oz.	1 to 2 oz.	2 dms. to 1 pint of water, twice or thrice a day, made from 1 oz. of quassia in a quart of boiling water.
Infusion of Senna	Aperient	Costiveness, etc.	...	1 oz.	1 oz.	oz.	1 to 2 oz.	2 to 4 oz.	1 oz. to a pint of hot water, infused for an hour, and strained off.
Iodine, Tincture of	Stimulant Absorbent	Bronchocele Swellings of Glands Scrofula	...	...	...	...	5 dps.	5 to 15 dps	Twice a day. This tincture applied externally promotes absorption, and acts as a counter-irritant.
Iodide of Iron, Syrup of	Tonic	Debility Scrofula Mesenteric disease	...	10 dps.	15 dps.	20 dps.	20 dps.	½ to 1 dm.	Twice a day.
			...	...	10 dps.	10 dps.	½ dm.	½ dm.	Do.

Names.	Operation.	Diseases in which given.	Doses according to Age.						Remarks.
			Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	
Ipecacuanha Powder	Emetic	Inflammations	...	...	...	...	...	20 to 30 grs.	For an emetic, in warm water.
	Expectorant	Fevers	$\frac{1}{8}$ gr.	$\frac{1}{4}$ gr.	$\frac{1}{2}$ gr.	1 gr.	1 gr.	2 grs.	Every six or eight hours.
		Coughs	...	...	...	...	1 gr.	1 to 3 grs.	As an expectorant, three times a day.
		Indigestion							
Ipecacuanha Wine	Emetic	Croup	$\frac{1}{2}$ dm.	1 dm.	1 dm.	2 dms.	$\frac{1}{2}$ oz.	$\frac{1}{2}$ oz.	As emetic, 1 teaspoonful every ten minutes till vomiting occurs, followed by warm water.
	Expectorant	Coughs &c.	1 dp.	2 dps.	3 dps.	5 dps.	10 dps	15 dps.	As an expectorant, three times a day.
Iron, Carbonate of	Tonic	Tic Douloureux	...	...	...	...	$\frac{1}{2}$ dm.	$\frac{1}{2}$ to 1 dm.	Three times a day.
Iron, Muriated Tincture of	Tonic Astringent Styptic	Debility Hæmorrhage	...	...	...	5 dps.	10 dps.	15 to 30 dps.	Twice or thrice a day. Applied on lint or wool to a bleeding surface, it will stop the bleeding. For this purpose it may be diluted with an equal quantity of water.

Names.	Operation.	Diseases in which given.	Doses according to Age.						Remarks.
			Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	
Iron, Tartrate of	Tonic	Debility Scrofula	...	2 grs.	3 grs.	5 grs.	10 grs.	20 to 30 grs.	Twice or thrice a day.
Iron, Wine of .	Tonic	Do.	5 dps.	10 dps.	15 dps.	30 dps.	1 dm.	2 dms.	Twice or thrice a day.
Jalap, Powder of	Purgative	Costiveness, etc.	...	5 grs.	5 grs.	10 grs.	15 grs.	30 grs.	
James's Powder	*See* Antimonial powder.								
Juniper, Infusion of	Diuretic Cordial Diaphoretic	Dropsies	...	...	...	...	...	2 to 3 oz.	Generally in combination with other diuretics, twice or thrice a day, made from ½ oz. of bruised berries in a pint of hot water.
Juniper, Spirits of	Do.	Do.	...	...	...	...	1 dm.	1 to 4 dms.	In water, three times a day.
Laudanum . .	Narcotic	Pain Spasms Diarrhœa, etc. etc.	...	...	...	2 to 5 dps.	5 to 15 dps.	15 to 40 dps.	Repeated if required, at intervals of four, six, or eight hours: NOT TO BE GIVEN TO INFANTS.

Names.	Operation.	Diseases in which given.	Doses according to Age.						Remarks.
			Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	
Lavender, Tincture or Spirits of	Stimulant Cordial	Fainting Hysteria, etc.	...	...	...	20 dps.	30 dps.	1 dm.	Taken in water.
Lenitive Electuary	*See* Confection of Senna								
Lettuce, Extract of	Sedative Diaphoretic	Dyspepsia	...	...	...	...	...	3 to 10 grs.	Twice a day, or at bedtime.
		Neuralgia	...	...	...	...	3 grs.	5 to 10 grs.	Do. This is a mild and safe sedative.
Lime, Chloride of	Disinfecting		...	...	...	...		...	Diluted with water, and exposed in shallow dishes.
	Stimulating	For foul Ulcers, sloughing Sore-throat	...	...	...	...	...	1 dm. to 6 oz. of water	As a gargle or lotion, or added to bread or linseed poultice.
Lime Water .	Antacid Sickness	Dyspepsia	...	2 dms.	½ oz.	½ oz	1 oz.	1 to 6 oz.	Taken with milk two or three times a day.
Lobelia, Tincture of	Expectorant Sedative	Asthma	...	...	...	...	...	5 to 15 dps.	Twice a day. To be used very cautiously.
Lunar Caustic .	*See* Nitrate of Silver								

Names.	Operation.	Diseases in which given.	Doses according to Age.						Remarks.
			Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	
Magnesia, Calcined	Antacid Aperient	Heartburn	...	...	...	...	10 grs.	20 grs.	Two or three times a day, in water.
		Dyspepsia Thrush	1 gr.	2 grs.	5 grs.	10 grs.	20 grs.	½ dm.	
Magnesia, Carbonate of	Do.	Do.	2 grs.	4 grs.	5 grs.	10 grs.	½ dm.	1 dm.	Do.
Magnesia, Sulphate of Epsom Salts	Aperient	Costiveness, etc.	...	...	...	2 dms.	2 dms. to ½ oz.	½ to 1 oz.	Dissolved in water or infusion of senna.
Manna . . .	Aperient	Costiveness	15 grs.	20 grs.	½ dm.	1 dm.	...	...	Once or twice a day.
Matico . . .	Absorbent	Bleeding	...	...	...	...	...	...	Applied to leech-bites and other bleeding surfaces.
Mercurial Ointment	Absorbent	In cases where it is desired to affect the system with mercury.	...	...	...	...	...	...	A drachm rubbed on the surface; in the groins or arm-pits, night and morning.
		To promote removal of swellings	...	...	...	...	...	...	Rubbed on the part.

Names.	Operation.	Diseases in which given.	Doses according to Age.						Remarks.
			Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	
Mercurial, or "Blue Pill"	Purgative	Bilious disorders Inflammations	... ...	... ...	... ...	2 grs. ...	2 to 3 grs. 3 grs.	5 to 5 grs. 5 grs.	At bed-time.
Mercury with Chalk (*Grey Powder*)	Aperient	In Disorders of the Bowels, in Fevers, etc. of children	½ to 1 gr.	1 to 2 grs.	3 grs.	5 grs.	...	...	Once or twice a day.
Mindererus Spirit	*See* Acetate of Ammonia								
Morphia, Acetate of	Narcotic Sedative	Same as Opium	...	...	...	...	⅛ to ½ gr.	¼ to ½ gr.	This is a very powerful medicine, and must be very cautiously used.
Morphia, Muriate of	Do.	Do.	...	...	...	...	⅛ to ¼ gr.	¼ to ½ gr.	Do.
Muriatic Acid	*See* Acid, Muriatic								

Names.	Operation.	Diseases in which given.	Doses according to Age.						Remarks.
			Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	
Myrrh, Tincture of	Astringent	Swelling or soreness of the gums	...	...	...	...	...	...	Dilute it with water, as a wash for the mouth.
Nitre, Powder (*Nitrate of Potash*)	Cooling Diuretic	Fevers	½ gr.	1 gr.	1 gr.	2 grs.	3 grs.	5 grs.	Two or three times a day. This is a very useful medicine in children's diseases.
		Dropsies	...	...	2 grs.	3 grs.	5 grs.	5 to 10 grs.	Every six or eight hours.
		Gargles	...	...	...	...	...	½ dm.	To 6 oz. of water.
Nitre, Sweet Spirits of	Diuretic Diaphoretic	Fevers Catarrh	...	...	...	10 to 15 dps.	20 dps. to ½ dm.	½ to 1 dm.	Two or three times a day.
Nitrate of Silver (*Lunar Caustic*)	Astringent	Inflamed Throat	...	...	...	...	...	1 dm. to 2 oz. of water.	Applied to the throat on a sponge tied to a stick, or a camel-hair brush.
Opodeldoc (*Soap Liniment*)	Stimulating	Local pains Rheumatism	...	...	...	...	...	...	Rubbed on the part.

Names.	Operation.	Diseases in which given.	Doses according to Age.						Remarks.
			Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	
Opium . . .	Narcotic Antispasmodic	Pain Diarrhœa Dysentery Cholera Spasms Rheumatism, etc. etc.	...	...	...	$\frac{1}{6}$ to $\frac{1}{4}$ gr.	$\frac{1}{4}$ to $\frac{1}{2}$ gr.	$\frac{1}{2}$ to 1 gr.	Repeated at intervals of four, six, or eight hours, if required. Opiates should be cautiously used in inflammations of the chest.
Oxide of zinc .	Tonic	Debility Diarrhœa Profuse Sweating Chorea	...	...	...	...	1 to 3 grs.	3 to 5 grs.	Twice or thrice in a day, made into pills, with bread-crumb.
	Drying	Excoriations	...	...	...	...	...	...	Dusted on the part.
Oxymel of Squills	Expectorant Diuretic	Cough Dropsies	...	...	...	...	$\frac{1}{2}$ to 1 dm.	1 to 2 dms.	Two or three times a day, with or without water.
Paregoric . .	Anodyne	Pain	...	...	...	...	$\frac{1}{2}$ dm.	1 dm.	Two or three times a day, in water.
	Sedative	Cough						2 dms	At bed-time, for a cold.
Peppermint, Oil of	Stimulant Antispasmodic Cordial	Flatulency Spasms Sickness	...	...	$\frac{1}{2}$ dp.	1 dp.	1 dp.	2 dps.	Mixed with water, or magnesia and water. *See* p. 330.

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Names.	Operation	Diseases in which given.	Doses according to Age.						Remarks.
			Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult	
Peppermint, Spirit of	Stimulant Anti-spasmodic Cordial	Flatulency Spasms Sickness	1 dp.	3 dps.	10 dps	15 dps.	½ dm.	1 dm	Occasionally, in water.
Peppermint Water.	Do	Do.	1 dm.	2 dms	4 dms.	1 oz.	1½ oz.	2 oz.	See p. 330.
Potash, Solution of	Antacid Diuretic Absorbent	Dyspepsia Skin diseases Obesity	...	...	...	...	10 to 20 dps.	20 dps. to ½ dm.	Twice a day after food. Three times a day. Diluted with a wine-glass of water.
Quassia . . .	*See* Infusion of								
Quinine, Sulphate of	Tonic Febrifuge	Debility	...	...	...	...	1 gr.	2 grs.	Twice or thrice a day.
		Fevers	...	...	...	...	1 gr.	2 grs.	Do.
		Erysipelas	...	...	...	...	1 gr.	2 grs.	Every six hours.
Red Precipitate	Stimulant	Indolent Ulcers	...	...	...	...	...	...	Applied in form of an ointment, or dusted on.
Rhubarb powder	Aperient Stomachic	Costiveness, etc.	2 grs.	4 grs.	5 grs.	10 grs	20 grs.	30 grs.	
		Indigestion	...	...	...	...	5 grs.	10 grs.	

Names.	Operation.	Diseases in which given.	Doses according to Age.						Remarks.
			Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	
Sal-Volatile, Spirits of	*See* Ammonia Aromatic, Spirits of								
Santonin.	Purgative.	Worms.		2 grs.	5 grs.				
Scammony Powder	Purgative	Costiveness Worms	...	...	3 grs.	5 grs.	8 grs.	10 grs.	
Senna	Purgative *See* Infusion	Costiveness, etc.							
Senna, Essence of	Purgative	Costiveness	½ dm.	1 dm.	1 dm	2 dms	½ oz.	½ oz.	
Soap Liniment	*See* Opodeldoc								
Spermaceti Cerate	Healing	Blistered surfaces Simple Sores or Ulcers	...	...	...	..	...	...	Spread upon lint or linen rag.
Stramonium, Thorn-apple	Antispasmodic	Asthma	...	...	..	...	...	...	The stalks, leaves, and fruit smoked in the manner of or with tobacco.

Names.	Operation.	Diseases in which given.	Doses according to Age.						Remarks.
			Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	
Sulphurous Acid.	Tonic and Astringent.	For Sore and Relaxed Throat.							Is used by the spray apparatus, sold by most Chemists and Druggists.
Sweet Spirits of Nitre	*See* Nitre								
Tartar Emetic	Diaphoretic Expectorant	Inflammations ...	...	...	...	...	...	$\frac{1}{8}$ to $\frac{1}{4}$ gr.	At intervals of four or five hours, to obtain the diaphoretic effect.
Tartar Emetic Ointment	Producing Eruption	...	...	...	...	...	...	...	1 dm. to 1 oz. of lard, rubbed on twice a day. This should not be applied to children's skins.
Tartaric Acid .	Cooling	Fever	...	...	...	...	...	10 grs. to $\frac{1}{2}$ dm.	With the same quantity of Carbonate of Soda or Potash in effervescence.
Thorn-apple .	*See* Stramonium								
Tincture of Benzoin	*See* Friar's Balsam								
[illegible]	[illegible]	Debility				...	$\frac{1}{2}$ dm.	1 to	Twice a day.

Names.	Operation.	Diseases in which given.	Doses according to Age.						Remarks.
			Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.	
Tincture of Opium	*See* Laudanum								
Tincture of Rhubarb	Aperient Stomachic	Costiveness Diarrhœa	... ...	... ...	... ...	2 dms. ...	½ oz. 2 dms.	1 oz.	
Tincture of Senna	Aperient Stomachic	Costiveness Colic	...	...	...	¼ oz.	½ to ½ oz.	½ to 1 oz.	
Tincture of Valerian	Antispasmodic.	Hysteria	...	...	..	...	½ dm.	1 dm.	Twice or thrice a day.
Turner's Cerate	*See* Calamine								
Turpentine, Spirits of	Diuretic Stimulant Purgative	Chronic Bronchitis Hæmorrhages Rheumatism	...	...	..	...	5 to 30 dps.	10 to 40 dps.	Twice or thrice a day.
		Tape Worm	...	...	...	...	1 dm.	1 dm.	With Castor Oil for Tapeworm.
		For external irritation *Turpentine "Stupes"*	...	.	...	...	2 dms.	½ oz.	Rubbed on alone, or sprinkled on flannel wrung out of hot water, and applied as fomentations.

TABLE OF PRESCRIPTIONS.

Where Blanks are left, the Medicines are not adapted to the Ages indicated thereby.

Prescriptions.	Quantities according to Ages.					
	Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.
1. *Saline Aperient Mixture.*						
Epsom Salts	...	...	...	1 dm.	2 dms.	½ oz.
Powdered Nitre	...	...	...	5 grs.	10 grs.	1 scr.
Infusion of Senna	...	...	...	1 oz.	2 oz.	4 oz.
Peppermint Water		.	...	1 oz.	2 oz.	4 oz.
Every 4 or 6 hours.				1 dessert-spoonful.	1 table-spoonful.	2 table-spoonfuls.
2. *Saline Fever Mixture.*						
Solution of Acetate of Ammonia	...	...	2 dms.	½ oz.	1 oz.	2 oz.
Powdered Nitre	...	...	5 grs.	10 grs.	1 scr.	½ dm.
Tartar Emetic	...	...		⅛ gr.	¼ gr.	½ gr.
Water	...	...	10 dms.	1½ oz.	2 oz.	4 oz.
Every 4 or 6 hours.			1 teaspoon-ful.	1 dessert-spoonful.	1 table-spoonful.	2 table-spoonfuls.
3. *Stimulant Saline Mixture.*						
Solution of Acetate of Ammonia	...	...	...	½ oz.	1 oz.	2 oz.
Carbonate of Ammonia . . .	...	...	...	10 grs.	15 grs.	½ dm.
Sweet Spirits of Nitre . . .	...	...	...	1 dm.	2 dms.	3 dms.
Water	...	...	...	2 oz.	2 oz.	4 oz.
Every 4 or 6 hours.				1 dessert-spoonful.	1 table-spoonful.	2 table-spoonfuls.

Prescriptions.	Quantities according to Ages.					
	Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.
4. *Saline Aperient and Tonic Mixture.*						
Sulphate of Magnesia . . .	...	...	...	...	1 oz.	2 oz.
Sulphate of Quinine	...	...	...	...	5 grs.	10 grs.
Diluted Sulphuric Acid . . .	...	...	...	...	½ dm.	1 dm.
Infusion of Gentian Root . .	...	...	...	...	4 oz.	8 oz.
Twice or thrice a day.					1 table-spoonful.	2 table-spoonfuls.
5. *Antacid Aperient Mixture.*						
Carbonate of Magnesia . . .	5 grs.	10 grs.	10 grs.	1 scr.	½ dm.	1 dm.
Carbonate of Soda.	10 grs.	15 grs.	20 grs.	1 scr.	½ dm.	1 dm.
Powdered Rhubarb	5 grs.	10 grs.	20 grs.	10 grs.	1½ dm.	2 scr.
Dill Water	1½ oz.	2 oz.	2 oz.	2 oz.	3 oz.	6 oz.
Once or twice a day.	1 teaspoon-ful.	1 teaspoon-ful.	1 teaspoon-ful.	1 dessert-spoonful.	1 table-spoonful.	2 table-spoonfuls.
6. *Cordial Antacid Mixture.*						
Carbonate of Magnesia . . .	5 grs.	10 grs.	15 grs.			
Spirits of Sal-Volatile . . .	20 dps.	½ dm.	1 dm.			
Tincture of Assafœtida . . .	10 dps.	15 dps.	20 dps.			
Dill Water	1 oz.	1½ oz.	2 oz.			
A teaspoonful every 3 or 4 hours.						

Prescriptions.	Quantities according to Ages.					
	Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.
7. *Senna Mixture.*						
Senna Leaves	...	...	...	...	4 dms.	6 dms.
Sliced Ginger	...	...	...	...	½ dm.	½ dm.
Tartrate of Soda (Rochelle Salt)	...	...	...	...	½ oz.	1 oz.
Boiling Water	...	...	...	...	6 oz.	9 oz.
After these have stood three hours let the liquor be strained off.					2 table-spoonfuls.	A wine-glassful.
8. *Stimulant Tonic Mixture.*						
Compound Tincture of Bark .	...	...	...	...	½ oz.	1 oz.
Carbonate of Ammonia . . .	...	...	...	...	1 scr.	2 scr.
Water	...	...	...	...	4 oz.	8 oz.
Three times a day.					1 table-spoonful.	2 table-spoonfuls.
9. *Quinine Mixture.*						
Sulphate of Quinine	...	...	...	...	8 grs.	16 grs.
Diluted Sulphuric Acid . . .	...	...	...	...	½ dm.	1 dm.
Water	...	...	...	...	4 oz.	8 oz.
Two or three times a day.					1 table-spoonful.	2 table-spoonfuls.

Prescriptions.	Quantities according to Ages.					
	Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.
10. *Alkaline Tonic Mixture.*						
Compound Tincture of Bark	...	...	...	...	¼ oz.	½ oz.
Solution of Potash	...	...	...	...	½ dm.	1 dm.
Peppermint Water	...	...	...	...	4 oz.	6 oz.
Three times a day.					1 table-spoonful.	2 table-spoonfuls.
11. *Sulphate of Zinc Mixture.*						
Sulphate of Zinc	...	...	...	2 grs.	3 grs.	6 grs.
Diluted Sulphuric Acid	...	...	...	½ dm.	½ dm.	½ dm.
Syrup of Lemon	...	...	...	½ oz.	½ oz.	½ oz.
Water	...	...	...	2 oz.	2½ oz.	5½ oz.
Twice a day.				1 dessert-spoonful.	1 table-spoonful.	2 table-spoonfuls.
12. *Tincture of Steel Mixture.*						
Muriated Tincture of Iron.	...	...	...	...	1 dm.	2 dms.
Water	...	...	...	...	3½ oz.	7½ oz.
Two or three times a day.					1 table-spoonful.	2 table-spoonfuls.
13. *Nitro-muriatic Acid Mixture.*						
Muriatic Acid	...	...	...	...	...	1 dm.
Nitric Acid	...	...	...	...	...	½ dm.
Water	...	...	...	...	...	6 oz.
1 tablespoonful twice or three times a day.						

Prescriptions.	Quantities according to Ages.					
	Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.
14. *Mixture for Acute Rheumatism.*						
Colchicum Wine	...	...	...	...	½ dm.	1 dm.
Bicarbonate of Potash . . .	...	...	...	...	¼ oz.	3 dms.
Water	...	...	...	...	3 oz.	6 oz.
Taken alone or effervescing with 1 tablespoonful of Lemon-juice, every four hours.					1 table-spoonful.	2 table-spoonfuls.
15. *Diaphoretic Mixture.*						
Paregoric	...	...	...	...	2 dms.	½ oz.
Ipecacuanha Wine	...	...	...	...	½ dm.	1 dm.
Powdered Nitre	...	...	...	...	10 grs.	20 grs.
Spirits of Camphor	...	...	...	...	20 dps.	30 dps.
Water	...	...	...	...	3 oz.	6 oz.
Every 4 or 6 hours.					1 table-spoonful.	2 table-spoonfuls.
16. *Sedative Saline Mixture.*						
Carbonate of Potash	...	...	...	...	1 dm.	2 dms.
Tincture of Henbane . . .	...	...	...	...	1 dm.	2 dms.
Tartrate of Soda	...	...	...	...	2 dms.	4 dms.
Water	...	...	...	...	4 oz.	6 oz.
One-fourth every 4 or 6 hours.						

Prescriptions.	Quantities according to Ages.					
	Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 hours.	10 to 20 years.	Adult.
17. *Cough Mixture.*						
Ipecacuanha Wine	...	...	...	...	½ dm.	1 dm.
Powdered Nitre	...	...	...	...	10 grs.	1 scr.
Syrup of Tolu	...	...	...	...	½ oz.	½ oz.
Water	...	...	...	...	1 oz.	1½ oz.
1 teaspoonful occasionally.						
18. *Cough Mixture for Children.*						
Ipecacuanha Wine	...	1 dm.	1½ dm.			
Paregoric	...	1 dm.	2 dms.			
Sugar and Water	...	10 dms.	9 dms.			
1 teaspoonful 3 times a day.						
19. *Cough Mixture.*						
Ipecacuanha Wine	...	...	...	...	1 dm.	2 dms.
Oxymel of Squills	...	...	...	...	1 oz.	1 oz.
Paregoric	...	...	...	...	½ oz.	6 dms.
1 teaspoonful occasionally.						
20. *Chalk Mixture.*						
Prepared Chalk	1 scr.	1 scr.	½ dm.	½ dm.	1 dm.	2 dms.
Aromatic Confection . . .	1 scr.	1 scr.	½ dm.	½ dm.	½ dm.	1 dm.
Spirits of Cinnamon (or Nutmeg)	10 dps.	15 dps.	15 dps.	20 dps.	20 dps.	½ dm.
Sugar and water, or Syrup .	1 oz.	1 oz.	1 oz.	1½ oz.	3 oz.	6 oz.
Two or three times a day.	1 teaspoonful.	1 teaspoonful.	1 teaspoonful.	1 teaspoonful.	2 tablespoonfuls.	A fourth part.

Prescriptions.	Quantities according to Ages.					
	Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.
21. *Diuretic Mixture.*						
Cream of Tartar	...	...	...	...	1 dm.	2 dms.
Powdered Borax	...	...	...	...	1 scr.	½ dm.
Sweet Spirits of Nitre . .	...	...	...	...	1 dm.	2 dms.
Spirits of Juniper	...	...	...	...	1 dm.	2 dms.
Water	...	...	...	...	4 oz.	6 oz.
A fourth part every four hours.						
22. *Tonic for Children.*						
Citrate of Iron	5 grs.	10 grs.	15 grs.	1 scr.		
Syrup	½ oz.	½ oz.	½ oz.	½ oz.		
Water	½ oz.	½ oz.	½ oz.	½ oz.		
1 teaspoonful three times a day.						
Or,						
Sulphate of Zinc	...	3 grs.	5 grs.	10 grs.		
Syrup	...	½ oz.	½ oz.	½ oz.		
Water	...	1 oz.	1 oz.	1 oz.		
1 teaspoonful twice a day.						

Prescriptions.	Quantities according to Ages.					
	Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.
23. *Mixture for Diarrhœa.*						
Creasote	1 dp.	2 dps.	4 dps.	6 dps.	12 dps.	20 dps.
Spirits of Sal-volatile	10 dps.	20 dps.	30 dps.	1 dm.	1 dm.	2 dms.
Paregoric	10 dps.	30 dps.	1 dm.	1½ dm.	2 dms.	3 dms.
Syrup	1 oz.	1 oz.	1½ oz.	1 oz.	1 oz.	½ oz.
Water	...	...	...	1½ oz.	3 oz.	6 oz.
Every four, six, or eight hours.	1 teaspoonful.	1 teaspoonful.	1 teaspoonful.	1 tablespoonful.	1 tablespoonful.	2 tablespoonfuls.
24. *Mixture for Lead Colic.*						
Sulphate of Magnesia	...	...	...	...	...	1 oz.
Powdered Alum	...	...	...	...	...	2 dms.
Tincture of Opium	...	...	...	...	...	½ dm.
Water	...	...	...	...	...	6 oz.
One-fourth every four or six hours.						
25. *Emetic Draught.*						
Ipecacuanha Powder	...	...	...	...	25 grs.	30 grs.
Tartar Emetic	...	...	...	...	½ gr.	1 gr.
Water	...	...	...	...	1½ oz.	1½ oz.
To be taken at one dose.						

Prescriptions.	Quantities according to Ages.					
	Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.
26. *Castor Oil and Turpentine Draught.*						
Castor Oil	...	...	...	...	½ oz.	6 dms.
Spirits of Turpentine . . .	...	...	...	...	1 dm.	2 dms.
Yolk of an Egg	...	...	...	...	2 dms.	2 dms.
Water	...	...	...	...	1 oz.	1 oz.
Shaken together in a bottle, and flavoured with a few drops of Essence of Peppermint.						
27. *Aperient Draught.*						
Sulphate of Magnesia . . .	...	...	...	½ dm.	1 dm.	2 dms.
Carbonate of Magnesia . .	...	...	...	10 grs.	10 grs.	1 scr.
Dill Water	...	...	...	½ oz.	1 oz.	1½ oz.
28. *Rhubarb Draught.*						
Powdered Rhubarb	...	...	...	...	1 scr.	2 scr.
Tartrate of Potash	...	...	...	...	½ dm.	1 dm.
Spirit of Sal-volatile . . .	...	...	...	...	20 dps.	½ dm.
Dill Water	...	...	...	...	1 oz.	1½ oz.

Prescriptions.	Quantities according to Ages.					
	Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.
29. *Effervescing Draughts.*						
Carbonate of Soda	...	...	...	...	½ dm.	½ dm.
Dissolved in half a tumbler of water.						
Tartaric Acid	...	...	...	...	1 scr.	1 scr.
Dissolved in wineglass of water. Mixed together and drunk while effervescing.						
Or,						
Carbonate of Potash . . .	...	...	...	...	15 grs.	1 scr.
Citric Acid	...	...	...	...	10 grs.	15 grs.
Mixed as above.						
30. *Tonic Tincture.*						
Compound Tincture of Bark .	...	...	...	...	...	1½ oz.
Iodide of Potassium . . .	...	...	...	...	...	1 scr.
1 teaspoonful three times a day, in a wineglass of water.						

Prescriptions.	Quantities according to Ages.					
	Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.
31. *Astringent Tonic Tincture.* Muriated Tincture of Iron . Water . . . . . . 1 teaspoonful three times a day, in a wineglass of water.	... ...	... ...	... ...	... ...	1 dm. 1½ oz.	2 dms. 1½ oz.
32. *Acid Tonic or Stomachic Tincture.* Compound Tincture of Bark . Diluted Sulphuric Acid . . 1 teaspoonful three times a day, in a wineglass of water.	... ...	.. ...	... ...	... ...	1½ oz. 1 dm.	1½ oz. 2 drms.
33. *Stomachic Tincture.* Tincture of Gentian . . . Tincture of Rhubarb . . . Spirits of Sal-volatile . . . Twice or thrice daily, in a wineglassful of water.	... ...	... ...	... ...	... ...	½ oz. ½ oz. ½ oz. half a teaspoonful for a dose.	½ oz. ½ oz. ½ oz. a teaspoonful for a dose.

Prescriptions.	Quantities according to Ages.					
	Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.
34. *Antispasmodic Tincture.*						
Spirits of Sal-volatile . . .	...	...	...	...	½ oz.	½ oz.
Compound Tincture of Lavender	...	...	...	...	3 dms.	3 dms.
Chloric Ether	...	...	...	...	1 dm.	1 dm.
Every three or four hours, in a wineglass of water, while the pain continues.					half a teaspoonful.	a teaspoonful.
35. *Effervescing Saline Aperient Powder (Seidlitz).*						
Tartrate of Soda	...	...	...	...	1 dm.	2 dms.
Carbonate of Soda	...	...	...	...	1 scr.	2 scr.
Dissolve in two-thirds of a tumbler of cold water, and then mix with						
Tartaric Acid	...	...	...	...	1 scr.	2 scr.
Dissolved in a wineglass of water.						
36. *Aperient Diaphoretic Powders.*						
Mercury with Chalk . . .	...	...	...	3 grs.	6 grs.	12 grs.
Dover's Powder	...	...	...	6 grs.	10 grs.	15 grs.
Divide into six powders. One every eight hours.						

Prescriptions.	Quantities according to Ages.					
	Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.
37. *Mild Aperient Powders.*						
Mercury with Chalk . . .	3 grs.	5 grs.	5 grs.	6 grs.	12 grs.	20 grs.
Powdered Rhubarb	3 grs.	8 grs.	10 grs.	12 grs.	20 grs.	½ dm.
Carbonate of Soda	3 grs.	5 grs.	10 grs.	12 grs.	20 grs.	½ dm.
Divide into six powders.						
Or, for one powder,						
Mercury with Chalk . . .	---	2 grs.	3 grs.	4 grs.	5 grs.	5 grs.
Powdered Rhubarb	---	3 grs.	5 grs.	6 grs.	10 grs.	10 grs.
38. *Purgative (or Worm) Powder.*						
Scammony Powder	...	...	3 grs.	5 grs.	5 grs.	6 grs.
Powdered Ginger	...	...	1 gr.	2 grs.	2 grs.	3 grs.
Calomel	...	...	1 gr.	1 gr.	2 grs.	3 grs.
39. *Stomachic Aperient Powder.*						
Powdered Rhubarb	...	...	...	...	½ oz.	½ oz.
Carbonate of Magnesia . . .	...	...	...	...	2 dms.	2 dms.
Powdered Ginger	...	...	...	...	½ dm.	½ dm.
					20 grs. for a dose.	30 grs. for a dose.

Prescriptions.	Quantities according to Ages.					
	Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.
40. *Powder for Chronic Rheumatism.*						
Powdered Guaiacum . . .	...	...	...	...	...	1 oz.
Precipitated Sulphur . . .	...	...	...	...	...	1 oz.
Carbonate of Magnesia . .	...	...	...	...	..	1 oz.
Carbonate of Soda	...	...	...	...	...	1 oz.
A teaspoonful in water, three times a day.						
41. *Fever Powder.*						
Calomel	3 grs.	4 grs.	5 grs.	6 grs.	10 grs.	12 grs.
Ipecacuanha Powder . . .	½ gr.	1 gr.	1½ gr.	2 grs.	5 grs.	6 grs.
Nitre Powder	3 grs.	5 grs.	8 grs.	12 grs.	15 grs.	20 grs.
Divided into six powders. One powder every four or six hours.						
42. *Aperient Pills.*						
Compound Extract of Colocynth	...	...	...	...	2 scrs.	2 scrs.
Blue Pill	...	...	...	...	10 grs.	1 scr.
Extract of Henbane . . .	...	...	...	...	5 grs.	10 grs.
To make twelve pills, two for a dose.						

Prescriptions.	Quantities according to Ages.					
	Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.
43. *Purgative Pills.*						
Powdered Aloes	...	...	...	...	...	½ dm.
Powdered Castile Soap . . .	...	...	...	...	...	1 scr.
Calomel	...	...	...	...	...	12 grs.
Made into a mass, and divided into twelve pills.						
One or two for a dose.						
44. *Mild Aperient Pills.*						
Powdered Rhubarb . . .	...	...	...	...	...	½ dr.
Powdered Ipecacuanha . .	...	...	...	...	...	3 grs.
Powdered Castile Soap . . .	...	...	...	...	...	15 grs.
Mixed with two or three drops of water, and divided into twelve pills.						
Two for a dose.						
45. *Calomel and Opium Pills.*						
Calomel	...	...	...	...	6 grs.	12 grs.
Powdered Opium	...	...	...	...	1 gr.	2 grs.
Add a drop of water or syrup to make these into a mass, to be divided into six pills.						

Prescriptions.	Quantities according to Ages.					
	Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.
46. *Calomel and Antimony Pills.*						
Calomel	...	...	...	...	...	12 grs.
Powdered Opium	...	...	...	...	...	3 grs.
Tartar emetic	...	...	...	...	...	1 gr.
To make a mass, to be divided into six pills.						
47. *Aperient Diaphoretic Pills.*						
Mercury and Chalk	...	...	...	...	6 grs.	12 grs.
Dover's Powder	...	...	...	...	10 grs.	15 grs.
To make a mass, to be divided into six pills.						
48. *Sugar of Lead Pills.*						
Sugar of Lead	...	...	...	...	10 grs.	12 grs.
Opium	...	...	...	...	1 gr.	2 grs.
Moistened bread-crumb enough to make a mass, to be divided into six pills.						

Prescriptions.	Quantities according to Ages.					
	Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.
49. *Sulphate of Zinc Pills.*						
Powdered Sulphate of Zinc .	...	...	...	...	6 grs.	12 grs.
Moist Bread-crumb	...	...	...	...	10 grs.	20 grs.
Mixed and divided into twelve pills.						
50. *Stimulant Expectorant Pills.*						
Camphor	...	...	...	...	...	5 grs.
Carbonate of Ammonia . .	...	...	...	...	...	5 grs.
Powdered Ipecacuanha . .	...	...	...	...	...	1 gr.
Extract of Henbane . . .	...	...	...	...	...	5 grs.
Moistened Bread, Treacle, or Gum, enough to make into four pills.						
One every four or six hours.						
51. *Cough Pills.*						
Dover's Powder	...	...	...	...	10 grs.	1 scr.
Compound Squill Pill . . .	..	...	...	...	1 scr.	2 scr.
Divided into twelve pills.						
One three times a day.						
52. *Oxide of Zinc Pills.*						
Oxide of Zinc	...	...	...	...	...	15 grs.
Extract of Hemlock . . .	...	...	...	...	...	10 grs.
Mixed and divided into six pills.						

Prescriptions.	Quantities according to Ages.					
	Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.
53. *Lotion for Eruptions on the Skin.*						
Borax	...	...	..	...	...	2 drms.
Honey	...	...	...	...	...	2 oz.
Water	...	...	...	...	...	6 oz.
54. *Lotion for Eruptions on the Skin.*						
Common Washing Soda . .	...	...	...	...	...	1 dm.
Water	...	...	...	...	...	1 pint.
55. *Lotion for Eruptions on the Skin.*						
Solution of Caustic Potash .	...	...	...	...	...	½ dm.
Water	...	...	...	...	...	1 pint.
56. *Chlorine Lotion.*						
Solution of Chloride of Lime.	...	...	...	...	...	½ oz.
Water	...	...	...	...	...	½ pint.
57. *Liniment for Chilblains.*						
Goulard's Extract	...	...	...	...	...	}
Spirits of Turpentine . . .	...	...	...	...	...	} equal parts.
Spirits of Camphor	...	...	...	...	...	}
To be rubbed on the part affected night and morning.						

Prescriptions.	Quantities according to Ages.					
	Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.
58. *Creasote Lotion.*						
Creasote	...	...	...	...	...	20 dps.
Solution of Potash	...	...	...	...	...	½ dm.
Water	...	...	...	...	...	1 pint.
The Creasote and Solution of Potash are to be shaken with a small quantity of water in a bottle, and the remainder added gradually.						
59. *Goulard Lotion.*						
Goulard's Extract	...	...	...	...	...	1 dm.
Distilled Vinegar	...	...	...	...	...	½ oz.
Water	...	...	...	...	...	1 pint.
60. *Turpentine Liniment.*						
Spirits of Hartshorn . . .	...	...	...	...	...	½ oz.
Olive Oil	...	...	...	...	...	1 oz.
Spirits of Turpentine . . .	...	...	...	...	...	½ oz.
To be well shaken together.						
61. *Camphorated Liniment.*						
Opodeldoc (Soap Liniment) .	...	...	...	...	...	2 oz.
Spirits of Camphor	...	...	...	...	...	6 dms.
Spirits of Hartshorn . . .	...	...	...	...	...	2 dms.

Prescriptions.	Quantities according to Ages					
	Under 1 year	1 to 2 years	2 to 7 years	7 to 14 years	14 to 21 years	Adult
62. *Astringent Lotion or Injection.*						
Sulphate of Zinc	—	—	—	—	12 grs.	15 grs.
Water	—	—	—	—	6 oz.	6 oz.
63. *Opiate Lotion.*						
Compound Water	—	—	—	—	½ oz.	½ oz.
Laudanum	—	—	—	—	1 dm.	1 dm.
65. *Black Wash.*						
Calomel	—	...	...	...	...	1 dm.
Lime Water	...	...	...	...	—	½ pint.
66. *Goulard Ointment.*						
Goulard's Extract	...	...	...	...	...	1 dm.
Fresh Lard	...	...	...	...	...	1 oz.
67. *Sulphur Ointment.*						
Flowers of Sulphur	...	...	...	...	...	1 oz.
Lard	...	...	...	...	...	2 oz.
68. *Iodide of Potassium Ointment.*						
Iodide of Potassium powdered.	...	...	...	...	...	1 dm.
Fresh Lard	...	...	...	...	...	1 oz.
Well rubbed together in a mortar, or on a slab.						

Prescriptions.	Quantities according to Ages.					
	Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.
68. *Carbonate of Iron Electuary.*						
Carbonate of Iron	...	...	...	...	1 oz.	1 oz.
Treacle	...	...	...	...	4 oz.	4 oz.
Three times a day.					half a teaspoonful.	1 teaspoonful.
69. *Diuretic and Aperient Electuary.*						
Cream of Tartar, powdered .	...	...	...	...	1 oz.	2 oz.
Powdered Nitre	...	...	...	...	1 dm.	2 dms.
Magnesia	...	...	...	...	½ oz.	1 oz.
Confection of Senna . . .	...	...	...	...	3 oz.	4 oz.
1 teaspoonful twice a day.						
69. *Purgative and Diuretic Electuary.*						
Cream of Tartar	...	...	...	...	...	½ oz.
Powdered Ginger	...	...	...	...	...	½ dm.
Powdered Jalap	...	...	...	...	...	1 dm.
Confection of Senna . . .	...	...	...	...	...	2 oz.
1 teaspoonful.						
70. *Astringent Gargle.*						
Powdered Alum	...	...	...	...	...	1 dm.
Tincture of Catechu . . .	...	...	...	...	...	1 dm.
Diluted Sulphuric Acid . .	...	...	...	...	...	½ dm.
Water	...	...	...	...	...	to 6 oz.

Prescriptions.	Quantities according to Ages.					
	Under 1 year.	1 to 3 years.	3 to 5 years.	5 to 10 years.	10 to 20 years.	Adult.
71. *Stimulant Gargle.*						
Diluted Sulphuric Acid . .	..	...	...	...	...	1 dm.
Tincture of Capsicum . . .	...	...	...	...	...	½ dm.
Water	...	...	...	...	...	to 6 oz.
72. *Clyster for Worms.* Aloes and Soap, of each one scruple, boiled in half a pint of water, and injected tepid into the bowel.						
73. *Clyster of Turpentine.*						
Spirits of Turpentine . . .	...	...	...	...	...	1 oz.
White of One Egg						
Warm Gruel	...	...	...	...	...	1 pint.
Shaken well together in a bottle. This clyster may be made more stimulant by the addition of one drachm of Tincture of Assafœtida.						
Or, Castor Oil	...	...	...	...	...	3 oz.
Warm water with Soap . .	...	...	...	...	...	1 pint.

N.B.—Dill Water, Peppermint Water, etc., are made by mixing twenty drops of Oil of Dill or Peppermint with a drachm of Carbonate of Magnesia, then adding a pint and a half of water, shaking it up well, and pour off clear when the Magnesia has settled.

LIST OF ARTICLES SUITABLE FOR AN ORDINARY MEDICINE CHEST.

Acetate of ammonia, or Mindererus spirit.
Acetate of lead.
Adhesive plaster.
Æther.
Aloes.
Alum.
Antimonial wine.
Bark, compound tincture of.
Basilicon ointment.
Bicarbonate of soda.
Blistering plaster, or liquid.
Borax.
Calomel.
Carbonate of ammonia.
Castor oil.
Catechu, tincture of.
Chalk, prepared.
Cod-liver oil.
Compound rhubarb pills.
Creasote.
Diluted sulphuric acid.
Dover's powder.
Epsom salts.
Forceps of different sizes.
Glass measures.
Grey powder, or mercury with chalk.
Iodide of potassium.
Iodine, tincture of.
Ipecacuanha powder.
Ipecacuanha wine.
Iron, muriated tincture of.
Jalap.
James's powder.
Laudanum.
Lint.
Lunar caustic.
Magnesia.
Mortars and pestles.
Nitre, powdered.
Nitre, spirits of.
Oil silk.
Opodeldoc.
Oxide of zinc.
Paregoric.
Peppermint, essence of.
Quinine.
Rhubarb powder.
Scales and weights.
Scissors.
Senna leaves.
Spatulas.
Tartaric acid.
Tincture of benzoin, or friar's balsam.
Tow.
Turpentine, spirits of.
Zinc, sulphate of.

INDEX.

N.B. *The figures attached to Medicines refer to their numbers in the "Table of Prescriptions."*

Abdomen, conditions of, in disease, 41.
Abdomen, wounds of, 252.
Abortion, 166.
Abrasion, 250.
Abscess, acute and chronic, 44.
Acid tonic or stomachic tincture (32), 319.
Acne, 45.
Ague, 46.
Ague Cake, 47.
Alcholic stimulants as articles of diet, 15.
Alcoholic stimulants in the treatment of disease, 14.
Alkaline tonic mixture (10), 312.
Amaurosis, 62.
Angina pectoris, 48.
Animation, suspended, 226.
Antacid aperient mixture (5), 310.
Antispasmodic tincture (34), 320.
Aperient and tonic saline mixture (4), 310.
Aperient draught (27), 317.
Aperient pills (42), 322.
Aperient powders (37), 321.
Aperient pills (47), 324.
Aperient powders (36), 320.
Appetite, variation of in disease, 40.
Aphonia, 49.
Apoplexy, 50.
Arm, broken, 232.
Arteries, wounds of, 226.
Asthma, 54.
Astringent gargle (70), 329.
Astringent lotion or injection (62), 328.
Astringent tonic tincture (31), 319.
Atrophy, 56.

Bakers' itch, 109.
Baldness, 57.
Barbiers, 57.
Baths, varieties of, 4.
Beef-tea, 12.
Beef-tea, concentrated, 12.
Beriberi, 57.
Bilious diarrhœa, 58.
Bilious disorders, 58.
Bites of dogs, 229.
Black wash (65), 328.
Black malady, 63.
Bladder, inflammation of, 59.
Blains or blebs, 60.
Bleeding from the nose, 61.
Bleeding from the urinary organs, 61.
Blindness, 62.
Blister plasters, their mode of application, etc., 26.
Blistering plaster, 282.
Blood, spitting of, 65.
Blood, vomiting and purging of, 63.
Bloodshot eye, 113.
Bloody flux, 106.
Body, position of, in disease, 35.

Boils, 66.
Bone, inflammation of, 67.
Bones, broken, 229.
Bones, broken, with wounds, 237.
Bowel complaint, 38.
Bowel complaints, 104.
Bowels, confined, in what diseases observed, 42.
Bowels, falling of, 68.
Bowels, inflammation of, 69.
Brain, chronic inflammation of, 74.
Brain, concussion of, 70.
Brain, congestion of, 71.
Brain, inflammation of, 72.
Brain, irritation of, 73.
Breast, harrowing of, 76.
Breast, inflammation of, 75.
Breathing, hurried or painful, in what diseases observed, 40.
Bright's disease, 147.
Bromide of iron, 278.
Bromide of potash, 278.
Bronchitis, 77.
Bruises, 79.
Burns, 118.
Burns, 238.

Calomel and antimony pills (46), 324.
Calomel and opium pills (45), 323.
Camphorated liniment (61), 327.
Cancer, 79.
Canker, 81.
Carbolic acid, 283.
Carbonate of iron electuary (68), 329.
Carbuncle, 81.
Carbuncle face, 45.
Catarrh, 82.
Catarrhal cough, 77.
Cattle, 67.
Castor oil and turpentine draughts (26), 317.
Catalepsy, 82.
Chalk mixture (20), 314.
Chaps, 83.
Chest, inflammation of, 77.
Chicken-pock, 84.
Chilblains, 86.
Child-crowing, 85.
Children, antipathy to fats sometimes a natural instinct, 12.
Chin cough, 137.
Chloral, syrup of, 285.
Chlorine lotion (56), 326.
Chlorosis, 86.
Choking, 240.
Cholera, Asiatic, 88.
Cholera, English, 87.
Chorea, 90.
Cleanliness essential to health, 3.
Cleanliness in sick room, 23.
Clergyman's sore-throat, 91.
Climate, change of, 19.
Clyster for turpentine (73), 330.
Clyster for worms (72), 330.
Cold, 241.
Cold, effects of extreme, 91.
Cold baths, cautions in use of, 5.
Cold baths, its effects, 4.
Cold baths, when not to be taken, 5.
Cold in the head, 83.
Colic, 91.
Collar bone, broken, 231.
Coma, 95.
Compound fractures, 237.
Condy's Fluid, 287.
Constipation or costiveness, 68.
Consumption, 94.
Convalescence, management of, 29.
Convulsions, 96.
Convulsions, puerperal, 97.
Cordial antacid mixture 310.
Corns, 97.
Corpulence, 173.
Cramp, 207.
Creasote lotion (58), 327.
Crepitation, 229.
Croup, 98.
Croup, pseudo or bastard, 85.
Cough, in what diseases observed, 40.

Cough, 98.
Cough mixture (17), 314.
Cough mixture (19), 314.
Cough mixture for children (18), 314.
Cough pills (51), 325.
Countenance as an index of disease, 35.
Countenance, its aspects as symptoms, 39.
Coup de soleil, 52.
Cuts, 250.
Cut-throat, 251.

Dandruff, 100.
Deafness, 100.
Debility, 101.
Delirium, 101.
Delirium, in what diseases observed, 38.
Delirium tremens, 101.
Dentition, 212.
Derbyshire neck, 79.
Diabetes, 102.
Diagnosis of disease, 34.
Diaphoretic mixture (15), 313.
Diarrhœa, 104.
Diet, 7.
Diet in diabetes, 104.
Diet in inflammations and febrile diseases, 10.
Diet of lying-in women, 152.
Dietary for the sick, 18.
Dietary in health, 18.
Digestibility of various articles of diet, 14.
Disinfection, the means of, 20.
Dislocations, 242.
Disorders attending pregnancy, 179.
Distinction between pain of spasm and of inflammation, 36.
Distinctive symptoms of disease, 34.
Diuretic and aperient electuary (69), 329.
Diuretic mixture (21), 315.
Dropsy, 105.
Drowning, 244.
Drowsiness, in what diseases observed, 37.
Drunkenness, 248.
Dry tetter, 158.
Dysentery, 106.
Dyspepsia, 140.

Earache, 108.
Ear, inflammation of, 108.
Ear, noises in, 108.
Ear, noises in, of what diseases a symptom, 38.
Eating tetter, 81.
Ecstasy, 82.
Eczema, 109.
Effervescing draughts (29), 318.
Effervescing saline aperient powder, seidlitz (35), 320.
Egg and flour splints, 236.
Emetic draught (25), 316.
Epilepsy, 110.
Erysipelas, 111.
Excoriation, 194.
Excoriation, 250.
Eye, dust, etc. in, 248.
Eye, inflammation of, 113.
Eyes, various aspects of, as symptoms, 38.

Fainting, 115.
Falling sickness, 110.
False Measles, 186.
Fever, bilious, 116.
Fever, continued, 115.
Fever, endemic, 117.
Fever, gastric, 116.
Fever, hectic, 116.
Fever, infantile remittent, 118.
Fever, intermittent, 46.
Fever powder (41), 322.
Fever, puerperal, 120.
Fever, remittent, 117.
Fever, typhus, 122.
Fever, typhoid, 124.
Fever, yellow, 126.
Fingers, broken, 233.
Fish, an article of diet, 13.
Fish-skin, 158.
Fistula, 217.

Fits, 96.
Fits, 249.
Flatulence, in what diseases observed, 41.
Flatulency, 129.
Fluor albus, 218.
Fomentations, 27.
Foot, bones of, broken, 237.
Frost-bite, 169.
Frost-bite, 241.
Functional derangements of the liver, 58.
Furniture of sick room, 23.

Gallstones passing, 147.
Gangrene, 169.
Giddiness, in what diseases observed, 37.
Goitre, 79.
Goulard lotion (59), 327.
Goulard ointment (66), 328.
Gout, 129.
Gravel, 132.
Graze, 250.
Green sickness, 86.
Gripes, 91.
Grocers' itch, 109.
Gum-lancing, 213.
Gunpowder burns, 252.
Gunshot wounds, 253.
Gutta serena (drop serene of Milton), 62.

Hæmoptysis, 65.
Hæmorrhage, 133.
Hæmorrhoids, 175.
Hanging, 249.
Headache, 134.
Headache, in what diseases observed, 37.
Heart, diseases of, 135.
Heart, disordered action of, 135.
Heartburn, 140.
Hernia, 186.
Hiccup, hiccough, 136.
Hiccup, in what diseases observed, 41.
Hip disease, 136.
Hives, 84.
Hoarseness, in what diseases observed, 39.
Hocket, 136.
Hooping cough, 137.
Hot-air bath, ready mode of making, 7.
Hot bath, cautions in use of, 6.
Hot bath, manner of giving to children, 6.
Housemaid's Knee, 149.
Humid tetter, 109.
Hydrocephalus, 72.
Hygiene, 4.
Hypochondriasis, 139.
Hysteria, 139.

Ice, manner of local application, 27.
Imperial, 287.
Indigestion, 140.
Inflammation, 141.
Influenza, 143.
Insanity, 144.
Iodide of potassium ointment (68), 328.
Irritable breast, 76
Itch, 145.

Jaundice, 146.

Knee, housemaid's, 149.
Knee, inflammation of, 149.
Knee-cap, broken, 235.
Kidneys, chronic disease of, 147.
Kidneys, inflammation of, 148.

Laryngismus, 85.
Laryngitis, 156.
Larynx, inflammation of, 156.
Leech-bites, 227.
Leeches, cautions to be observed in their application, 25.
Leg, broken, 236.
Lepra, 158.
Leprosy, 158.
Lethargy, 93.
Leucorrhœa, 218.
Lichen, 158.
Light of sick room, 23.

Lightning, 249.
Limbs, their conditions in various diseases, 43.
Liniment for chilblains (57), 326.
List of articles suitable for medicine chest, 331.
Lockjaw, 213.
Lotion for eruptions on the skin (53), 326.
Lotion for eruptions on the skin (54), 326.
Lotion for eruptions on the skin (55), 326.
Lotions, their uses, etc., 27.
Low spirits, 139.
Lungs, inflammation of, 159.
Lupus, 81.
Lying-in room, conduct of, 150.

Malt liquors, 16.
Marasmus, 165.
Marshall Hall's method of inducing respiration, 245.
Measles, 160.
Meat, when to be given to children, 12.
Medicines, circumstances modifying the effects of, 263.
Medicines, classification of, 266.
Medicines, observations on doses of, 263.
Menstruation, cessation of, 164.
Menstruation, disorders of, 162.
Menstruation, excessive, 164.
Menstruation, painful, 163.
Mesenteric decline, 165.
Mesenteric disease, 165.
Milk abscess, 75.
Mild aperient pills (44), 323.
Milk fever, 122.
Milk, sugar of, as diet for children, 11.
Milk, varieties of, as articles of diet, 11.
Miscarriage, 166.
Mixture for acute rheumatism (14), 313.
Mixture for diarrhœa (23), 316.
Mixture for lead colic (24), 316.
Moles, 168.
Mortification, 169.
Mothers' marks, 168.
Mouth, inflammation of, 170.
Mumps, 170.
Mustard plaster, 28.

Nævus, 168.
Nausea, in what diseases observed, 41.
Navel, protrusion of, 171.
Navel-string, tying of, 154.
Necrosis, 67.
Nervousness, 171.
Nettle-rash, 171.
Neuralgia, 172.
New-born infant, the management of, 153.
Nodes, 173.
Noli-me-tangere, 81.
Nurse, qualifications of, 24.
Nose, broken, 230.
Nitro-muriatic acid mixture (13), 312.

Obesity, 173.
Ophthalmia, 113.
Opiate lotion (63), 328.
Oxide of zinc pills (52), 325.

Pain, its value as a symptom. 36.
Palpitation, in what diseases observed, 40.
Paralysis, 173.
Periosteum, inflammation of, 175.
Peritoneum, inflammation of, 69.
Peritoneum, inflammation of, 175.
Piles, 175.
Plague, 176.
Pleurisy, 177.
Pneumonia, 159.
Poisoning, general observations on, 257.
Poisons, table of, 258.
Poulticing, 28.
Powder for chronic rheumatism (40), 322.

Pregnancy, management of, 178.
Prickly heat, 158.
Prolapsus, 68.
Proud flesh, 240.
Pseudo-croup, 85.
Puerperal mania, 144.
Pulmonary hæmorrhage, 65.
Pulse, as an indication of disease, 36.
Pulse, rapid and full, in what diseases observed, 42.
Pulse, rapid and small, in what diseases observed, 43.
Purgative and diuretic electuary (69), 329.
Purgative (or worm) powder (38), 321.
Purgative pills (43), 323.
Purpura, 182.
Pus, 44.

Quinine mixture (9), 311.

Rainbow ringworm, 214.
Reckoning for date of labour, 180.
Red gum, 158.
Retention of urine, 210.
Rheumatism, 182.
Rhubarb draught (28), 317.
Ribs, broken, 231.
Rickets, 185.
Ringworm, 185.
Rose Rash, 186.
Rosy drop, 45.
Rupture, 186.

Saline aperient mixture (1), 309.
Saline fever mixture (2), 309.
Scabies, 145.
Scalds, 239.
Scall, 109.
Scalled Head, 188.
Scarlatina, 189.
Sciatica, 183.
Scrofula, 192.
Scurf, 100.
Sea-bathing, 4.
Sea-water, distillation of, 9.
Sedative saline mixture (16), 313.
Senna mixture (7), 311.
Shingles, 214.
Shivering, in what diseases observed, 43.
Shock, 225.
Shower-bath, 5.
Sick headache, 58.
Sickness, 194.
Signs of death, 248.
Sinapism, 28.
Skin, colour of, in disease, 35.
Skin, inflammation of, 195.
Skin, various states of, in disease, 42.
Skull fractured, 249.
Sleep, amount required by various ages, 1.
Sleep, dangers of neglect of, 2.
Sleeplessness, in what diseases observed, 38.
Slough, 217.
Sloughing, 169.
Smallpox, 195.
Snake-bites, 228.
Sore nipples, 153.
Sore-throat of clergymen, 91.
Sore-throat, 206.
Spasm, 207.
Spasm of the heart, 48.
Spinal curvature, 208.
Spirit, its medicinal uses, 17.
Sponging surface of body in disease, 27.
Splinters, etc., 252.
Sprains, 249.
St. Anthony's fire, 111.
St. Vitus's dance, 90.
Stab, 251.
Stimulant saline mixture (3), 309.
Stings of insects, etc., 228.
Stimulant tonic mixture (8), 311.
Stimulant expectorant pills (50), 325.
Stimulant gargle (71), 330.
Stomach, pain of, in what diseases observed, 41.

Stomachic aperient powder (39), 321.
Stomachic tincture (33), 319.
Stone in bladder, 209.
Stone pock, 45.
Strangury, 210.
Stricture, 211.
Suffocation, 250.
Suffocative breast pang, 48.
Sugar of lead pills (48), 324.
Sugar in the urine, tests for, 103.
Sulphate of zinc mixture (11), 312.
Sulphate of zinc pills (49), 325.
Sulphur ointment (67), 328.
Suppuration, 44.
Suspended animation in newly-born children, 154.
Swine-pock, 84.
Swooning, 115.
Symptoms, how to observe, 34.
Symptoms, introductory observations upon, 33.

Teeth, bleeding from, 212.
Teething, 212.
Tepid bath, 6.
Tetanus, 213.
Tetter, 214.
Thirst to be appeased by water, 9.
Thorns, 252.
Throat, its conditions as a symptom, 39.
Thrush, 215.
Tic douloureux, 172.
Tincture of steel mixture (12), 312.
Tongue-tie, 156.
Tongue, its aspects in disease, 38.
Tongue, ulceration of, 216.
Tonic alterative draught (30), 318.
Tonic for children (22), 315.
Tonsils, inflammation of, 206.
Toothache, 216.
Tooth-rash, 158.
Trance, 82.
Turpentine fomentations or stupes, 27, 307.
Turpentine liniment (60), 327.

Ulceration, 217.
Urine, various conditions of, as symptoms, 42.

Vaccination, 201.
Vapour-bath, ready mode of making, 7.
Vapours, 139.
Varicella, 84.
Vegetable acids, value of as beverages, 10.
Ventilation, 21.
Ventilation and temperature of sick room, 22.
Voice, loss of, 49.

Warm bath for children, how to avoid alarm, 27.
Warm bath for children, temperature and duration of, 28.
Warm baths, temperature of, 6.
Warm bath, its effects, 6.
Warts, 218.
Wasting, 56.
Water on the brain, 72.
Water-pock, 84.
Water may be freely drunk in febrile complaints, 9.
Water for drinking, 8.
Water for drinking, means of purifying, 8.
Weights and measures, 269.
Whelk, 45.
Whites, 218.
White leg, 219.
White swelling, 150.
Whitlow, 220.
Wine, its medicinal uses, 16.
Worms, 220.
Wounds, 250.

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178